

SEQUENCE LISTING

<110> DRAKE, Caroline Rachel
PAINE, Jacqueline Ann Mary
SHIPTON, Catherine Ann

<120> Enhanced Accumulation of Carotenoids in Plants

<130> 70237USPCT

<140> US 10/549,352

<141> 2005-09-14

<150> PCT/GB2004/001241

<151> 2004-03-24

<150> US60/457,053

<151> 2003-03-22

<160> 38

<170> PatentIn version 3.2

<210> 1

<211> 5630

<212> DNA

<213> Artificial Sequence

<220>

<223> 12423

<400> 1

```
gttaatcatg gtgtaggcaa cccaaataaa acaccaaagt atgcacaagg cagtttgttg      60
tattctgtag tacagacaaa actaaaagta atgaaagaag atgtggtggt agaaaaggaa      120
acaatatcat gagtaatgtg tgagcattat gggaccacga aataaaaaga acattttgat      180
gagtcgtgta tcctcgatga gcctcaaaag ttctctcacc ccggataaga aacccttaag      240
caatgtgcaa agtttgcatt ctccactgac ataatgcaaa ataagatatc atcgatgaca      300
tagcaactca tgcacatat catgcctctc tcaacctatt cattcctact catctacata      360
agtatcttca gctaaatggt agaacataaa cccataagtc acgtttgatg agtattaggc      420
gtgacacatg acaaatcaca gactcaagca agataaagca aaatgatgtg tacataaaac      480
tccagagcta tatgtcatat tgcaaaaaga ggagagctta taagacaagg catgactcac      540
aaaaattcat ttgcctttcg tgtcaaaaag aggagggctt tacattatcc atgtcatatt      600
gcaaaagaaa gagagaaaga acaacacaat gctgcgtaa ttatacatat ctgtatgtcc      660
atcattatcc atccaccttt cgtgtaccac acttcatata tcatgagtca cttcatgtct      720
ggacattaac aaactctatc ttaacattta gatgcaagag cttttatctc actataaatg      780
cacgatgatt tctcattggt tctcacaaaa agcattcagt tcattagtcc tacaacaacg      840
```

aattcggctt	cccgggtaca	gggtaaaattt	ctagtttttc	tccttcattt	tcttggttag	900
gacccttttc	tctttttatt	tttttgagct	ttgatctttc	tttaaactga	tctatttttt	960
aattgattgg	ttatcgtgta	aatattacat	agctttaact	gataatctga	ttactttatt	1020
tcgtgtgtct	ttgatcatct	tgatagttac	agaaccgtcg	actctagaga	agccatttaa	1080
atcgccgcca	ccatggcttc	tatgatatcc	tcttccgctg	tgacaacagt	cagccgtgcc	1140
tctagggggc	aatccgccgc	agtggctcca	ttcggcggcc	tcaaattccat	gactggattc	1200
ccagtgaaga	aggtcaacac	tgacattact	tccattacaa	gcaatggtgg	aagagtaaag	1260
tgcatgaaac	caactacggt	aattggtgca	ggcttcggtg	gcctggcact	ggcaattcgt	1320
ctacaagctg	cggggatccc	cgtcttactg	cttgaacaac	gtgataaacc	cggcggtcgg	1380
gcttatgtct	acgaggatca	ggggtttacc	tttgatgcag	gcccgcggt	tatcacgat	1440
cccagtgcc	ttgaagaact	gtttgcactg	gcaggaaaac	agttaaaaga	gtatgtcgaa	1500
ctgctgccgg	ttacgccgtt	ttaccgcctg	tgttgggagt	caggggaagg	ctttaattac	1560
gataacgatc	aaaccggct	cgaagcgcag	attcagcagt	ttaatccccg	cgatgtcgaa	1620
ggttatcgtc	agtttctgga	ctattcacgc	gcggtgttta	aagaaggcta	tctgaagctc	1680
ggtactgtcc	cttttttatc	gttcagagac	atgcttcgcg	ccgcacctca	actggcgaaa	1740
ctgcaggcat	ggagaagcgt	ttacagtaag	gttgccagtt	acatcgaaga	tgaacatctg	1800
cgccaggcgt	tttctttcca	ctcgctgttg	gtgggcggca	atcccttcgc	cacctcatcc	1860
atttatacgt	tgatacacgc	gctggagcgt	gagtggggcg	tctggtttcc	gcgtggcggc	1920
accggcgcat	tagttcaggg	gatgataaag	ctgtttcagg	atctgggtgg	cgaagtcgtg	1980
ttaaacgcca	gagtcagcca	tatggaaacg	acaggaaaca	agattgaagc	cgtgcattta	2040
gaggacggtc	gcaggttcct	gacgcaagcc	gtcgcgtcaa	atgcagatgt	ggttcatacc	2100
tatcgcgacc	tgtaagcca	gcaccctgcc	gcggttaagc	agtccaacaa	actgcagact	2160
aagcgcgatg	gtaactctct	gtttgtgctc	tattttgggt	tgaatcacca	tcatgatcag	2220
ctcgcgcatac	acacggtttg	tttcggccccg	cgttaccgcg	agctgattga	cgaaattttt	2280
aatcatgatg	gcctcgcaga	ggacttctca	ctttatctgc	acgcgccctg	tgtcacggat	2340
tcgtcactgg	cgctgaagg	ttgcggcagt	tactatgtgt	tggcgccgggt	gccgcattta	2400
ggcaccgcga	acctcgactg	gacggttgag	gggccaaaac	tacgcgaccg	tatttttgcg	2460
taccttgagc	agcattacat	gcctggctta	cggagtcagc	tggtcacgca	ccggatgttt	2520
acgccgtttg	atcttcgcga	ccagcttaat	gcctatcatg	gctcagcctt	ttctgtggag	2580
cccgttctta	cccagagcgc	ctggtttcgg	ccgcataacc	gcgataaaac	cattactaat	2640

ctctacctgg	tcggcgagg	cacgcatccc	ggcgaggca	ttcctggcgt	catcggctcg	2700
gcaaaagcga	cagcagggttt	gatgctggag	gatctgattt	gaggccatgc	aggccgatcc	2760
ccgatcggtc	aaacatttgg	caataaagtt	tcttaagatt	gaatcctggt	gccgggtcttg	2820
cgatgattat	catataattt	ctgttgaatt	acgttaagca	tgtaataatt	aacatgtaat	2880
gcatgacgtt	atztatgaga	tgggttttta	tgattagagt	cccgaatta	tacatttaat	2940
acgcgataga	aaacaaaata	tagcgcgcaa	actaggataa	attatcgcg	gcggtgtcat	3000
ctatgttact	agatcgggcc	ttaataagct	tgттаatcat	ggtgtaggca	acccaaataa	3060
aacacaaaaa	tatgcacaag	gcagtttggt	gtattctgta	gtacagacaa	aactaaaagt	3120
aatgaaagaa	gatgtgggtg	tagaaaagga	aacaatatca	tgagtaatgt	gtgagcatta	3180
tgggaccacg	aaataaaaag	aacattttga	tgagtcgtgt	atcctcgatg	agcctcaaaa	3240
gttctctcac	cccggataag	aaacccttaa	gcaatgtgca	aagtttgcat	tctccactga	3300
cataatgcaa	aataagatat	catcgatgac	atagcaactc	atgcatcata	tcatgcctct	3360
ctcaacctat	tcattcctac	tcatctacat	aagtatcttc	agctaaatgt	tagaacataa	3420
acccataagt	cacgtttgat	gagtattagg	cgtagacacat	gacaaatcac	agactcaagc	3480
aagataaagc	aaaatgatgt	gtacataaaa	ctccagagct	atatgtcata	ttgcaaaaag	3540
aggagagctt	ataagacaag	gcatgactca	caaaaattca	tttgcctttc	gtgtcaaaaa	3600
gaggagggct	ttacattatc	catgtcatat	tgcaaaagaa	agagagaaag	aacaacacaa	3660
tgctgctgca	attatacata	tctgtatgtc	catcattatt	catccacctt	tcgtgtacca	3720
cacttcatat	atcatgagtc	acttcatgtc	tggacattaa	caaactctat	cttaacattt	3780
agatgcaaga	gcctttatct	cactataaat	gcacgatgat	ttctcattgt	ttctcacaaa	3840
aagcattcag	ttcattagtc	ctacaacaac	gaattcggct	tcccgggtac	agggtaaatt	3900
tctagttttt	ctccttcatt	ttcttggtta	ggaccctttt	ctctttttat	ttttttgagc	3960
tttgatcttt	ctttaaactg	atctattttt	taattgattg	gttatcgtgt	aaatattaca	4020
tagctttaac	tgataatctg	attactttat	ttcgtgtgtc	tttgatcatc	ttgatagtta	4080
cagaaccgtc	gactctagag	aagccattta	aatcgccgcc	accatggcca	tcatactcgt	4140
acgagcagcg	tcgccggggc	tctccgccgc	cgacagcatc	agccaccagg	ggactctcca	4200
gtgctccacc	ctgctcaaga	cgaagaggcc	ggcgccgcgg	cgggtggatgc	cctgctcgct	4260
ccttggcctc	caccctgagg	aggctggccg	tccctcccc	gccgtctact	ccagcctgcc	4320
cgtcaaccgc	gcgggagagg	ccgtcgtctc	gtccgagcag	aaggctctacg	acgtcgtgct	4380
caagcaggcc	gcattgctca	aacgccagct	gcgcacgccg	gtcctcgacg	ccaggcccca	4440

```

ggacatggac atgccacgca acgggctcaa ggaagcctac gaccgctgcg gcgagatctg 4500
tgaggagtat gccaaagacgt ttacctcgg aactatgttg atgacagagg agcggcgccg 4560
cgccatatgg gccatctatg tgtggtgtag gaggacagat gagcttgtag atgggccaaa 4620
cgccaactac attacaccaa cagctttgga ccgggtgggag aagagacttg aggatctggt 4680
cacgggacgt ccttacgaca tgcttgatgc cgctctctct gataccatct caaggttccc 4740
catagacatt cagccattca gggacatgat tgaagggatg aggagtgatc ttaggaagac 4800
aaggtataac aacttcgacg agctctacat gtactgctac tatgttgctg gaactgtcgg 4860
gttaatgagc gtacctgtga tgggcatcgc aaccgagtct aaagcaacaa ctgaaagcgt 4920
atacagtgct gccttggtctc tgggaattgc gaaccaactc acgaacatac tccgggatgt 4980
tggagaggat gctagaagag gaaggatata ttaccacaa gatgagcttg cacaggcagg 5040
gctctctgat gaggacatct tcaaaggggt cgtcacgaac cgggtggagaa acttcatgaa 5100
gaggcagatc aagagggcca ggatgttttt tgaggaggca gagagagggg taactgagct 5160
ctcacaggct agcagatggc cagtatgggc ttccctgttg ttgtacaggc agatcctgga 5220
tgagatcgaa gccaacgact acaacaactt cacgaagagg gcgtatgttg gtaaagggaa 5280
gaagttgcta gcacttcctg tggcatatgg aaaatcgcta ctgctcccat gttcattgag 5340
aaatggccag acctagggcc atgcaggccg atccccgatc gttcaaacat ttggcaataa 5400
agtttcttaa gattgaatcc tgttgccgggt cttgcgatga ttatcatata atttctgttg 5460
aattacgtta agcatgtaat aattaacatg taatgcatga cgttatttat gagatggggt 5520
tttatgatta gagtcccgca attatacatt taatacgca tagaaaacaa aatatagcgc 5580
gcaaactagg ataaattatc gcgcgcggtg tcatctatgt tactagatcg 5630

```

```

<210> 2
<211> 5630
<212> DNA
<213> Artificial Sequence

```

```

<220>
<223> 12421

```

```

<400> 2
gttaatcatg gtgtaggcaa cccaaataaa acaccaaagt atgcacaagg cagtttggtg 60
tattctgtag tacagacaaa actaaaagta atgaaagaag atgtggtggt agaaaaggaa 120
acaatatcat gagtaatgtg tgagcattat gggaccacga aataaaaaga acattttgat 180
gagtcgtgta tcctcgatga gcctcaaaag ttctctcacc ccggataaga aacccttaag 240
caatgtgcaa agtttgcatc ctccactgac ataatgcaaa ataagatatc atcgatgaca 300

```

tagcaactca tgc	atcatat catgcctctc tcaac	ctatt cattcctact catctacata	360
agtatcttca gctaaatg	tta agaacataaa cccataagtc	acgtttgatg agtattaggc	420
gtgacacatg acaa	atcaca gactcaagca agataaagca	aaatgatgtg tacataaaac	480
tccagagcta tatgtcatat	tgcaaaaaga ggagagctta	taagacaagg catgactcac	540
aaaaattcat ttgcctttcg	tgtcaaaaag aggagggtt	tacattatcc atgtcatatt	600
gcaaaagaaa gagagaa	aga acaacacaat gctgcgtcaa	ttatacatat ctgtatgtcc	660
atcattattc atccaccttt	cgtgtaccac acttcatata	tcatgagtca cttcatgtct	720
ggacattaac aaactctatc	ttaacattta gatgcaagag	cctttatctc actataaatg	780
cacgatgatt tctcattgtt	tctcacaaaa agcattcagt	tcattagtcc tacaacaacg	840
aattcggctt cccgggtaca	gggtaaattt ctagtttttc	tccttcattt tcttggttag	900
gacccttttc tctttttatt	tttttgagct ttgatctttc	tttaaaactga tctatttttt	960
aattgattgg ttatcgtgta	aatattacat agctttaact	gataatctga ttactttatt	1020
tcgtgtgtct ttgatcatct	tgatagttac agaaccgtcg	actctagaga agccatttaa	1080
atcgccgcca ccatggcttc	tatgatatcc tcttccgctg	tgacaacagt cagccgtgcc	1140
tctagggggc aatccgccgc	agtggctcca ttcggcggcc	tcaaatccat gactggattc	1200
ccagtgaaga aggtcaacac	tgacattact tccattacaa	gcaatggtgg aagagtaaag	1260
tgcatgaaac caactacggt	aattggtgca ggcttcggtg	gcctggcact ggcaattcgt	1320
ctacaagctg cggggatccc	cgtcttactg cttgaacaac	gtgataaacc cggcggtcgg	1380
gcttatgtct acgaggatca	ggggtttacc tttgatgcag	gcccgcggt tatcaccgat	1440
cccagtgcca ttgaagaact	gtttgcactg gcaggaaaac	agttaaaaga gtatgtcgaa	1500
ctgctgccgg ttacgccgtt	ttaccgcctg tgttgggagt	caggggaaggc ctttaattac	1560
gataacgatc aaaccgggt	cgaagcgag attcagcagt	ttaatccccg cgatgtcgaa	1620
ggttatcgtc agtttctgga	ctattcacgc gcggtgttta	aagaaggcta tctgaagctc	1680
ggtactgtcc cttttttatc	gttcagagac atgcttcgcg	ccgcacctca actggcgaaa	1740
ctgcaggcat ggagaagcgt	ttacagtaag gttgccagtt	acatcgaaga tgaacatctg	1800
cgccaggcgt tttctttcca	ctcgctgttg gtgggcggca	atcccttcgc cacctcatcc	1860
atttatacgt tgatacacgc	gctggagcgt gagtggggcg	tctggtttcc gcgtggcggc	1920
accggcgcat tagttcaggg	gatgataaag ctgtttcagg	atctgggtgg cgaagtcgtg	1980
ttaaacgcca gagtcagcca	tatggaaacg acaggaaaca	agattgaagc cgtgcattta	2040
gaggacggtc gcaggttcct	gacgcaagcc gtcgctcaa	atgcagatgt ggttcatacc	2100

tatcgcgacc	tgtaagcca	gcacctgcc	gcggttaagc	agccaacaa	actgcagact	2160
aagcgcacga	gtaactctct	gtttgtgctc	tattttgggt	tgaatcacca	tcatgatcag	2220
ctcgcgcac	acacggtttg	tttcggcccg	cgttaccgcg	agctgattga	cgaaattttt	2280
aatcatgatg	gcctcgcaga	ggactttctca	ctttatctgc	acgcgccctg	tgtcacggat	2340
tcgtcactgg	cgctgaagg	ttgcggcagt	tactatgtgt	tggcgccggg	gccgcattta	2400
ggcaccgcga	acctcgactg	gacggttgag	gggccaaaac	tacgcgaccg	tatttttgcg	2460
taccttgagc	agcattacat	gcctggctta	cggagtcagc	tggtcacgca	ccgatgttt	2520
acgccgtttg	attttcgcga	ccagcttaat	gcctatcatg	gctcagcctt	ttctgtggag	2580
cccgttctta	cccagagcgc	ctggtttcgg	ccgcataacc	gcgataaaac	cattactaat	2640
ctctacctgg	tcggcgcagg	cacgcacccc	ggcgcaggca	ttcctggcgt	catcggctcg	2700
gcaaaagcga	cagcaggttt	gatgctggag	gatctgattt	gaggccatgc	aggccgatcc	2760
ccgatcgctt	aaacatttgg	caataaagtt	tcttaagatt	gaatcctgtt	gccggtcttg	2820
cgatgattat	catataattt	ctggtgaatt	acgttaagca	tgtaataatt	aacatgtaat	2880
gcatgacggt	atttatgaga	tgggttttta	tgattagagt	cccgaatta	tacatttaat	2940
acgcgataga	aaacaaaata	tagcgcgcaa	actaggataa	attatcgcgc	gcggtgtcat	3000
ctatgttact	agatcgggcc	ttaataagct	tgtaatcat	ggtgtaggca	acccaaataa	3060
aacaccaaaa	tatgcacaag	gcagtttggt	gtattctgta	gtacagacaa	aactaaaagt	3120
aatgaaagaa	gatgtggtgt	tagaaaagga	aacaatatca	tgagtaatgt	gtgagcatta	3180
tgggaccacg	aaataaaaag	aacattttga	tgagtcgtgt	atcctcgatg	agcctcaaaa	3240
gttctctcac	cccggataag	aaacccttaa	gcaatgtgca	aagtttgcat	tctccactga	3300
cataatgcaa	aataagatat	catcgatgac	atagcaactc	atgcatcata	tcatgcctct	3360
ctcaacctat	tcatctctac	tcatctacat	aagtatcttc	agctaaatgt	tagaacataa	3420
acccataagt	cacgtttgat	gagtattagg	cgtgacacat	gacaaatcac	agactcaagc	3480
aagataaagc	aaaatgatgt	gtacataaaa	ctccagagct	atatgtcata	ttgcaaaaag	3540
aggagagctt	ataagacaag	gcatgactca	caaaaattca	tttgcccttc	gtgtcaaaaa	3600
gaggagggct	ttacattatc	catgtcatat	tgcaaaagaa	agagagaaag	aacaacacaa	3660
tgctgcgtca	attatacata	tctgtatgtc	catcattatt	catccacctt	tcgtgtacca	3720
cacttcatat	atcatgagtc	acttcatgtc	tggacattaa	caaactctat	cttaacattt	3780
agatgcaaga	gcctttatct	cactataaat	gcacgatgat	ttctcattgt	ttctcacaaa	3840
aagcattcag	ttcattagtc	ctacaacaac	gaattcgggt	tcccgggtac	agggtaaatt	3900

tctagttttt	ctccttcatt	ttcttgggta	ggaccctttt	ctctttttat	ttttttgagc	3960
tttgatcttt	ctttaaactg	atctattttt	taattgattg	gttatcgtgt	aaatattaca	4020
tagctttaac	tgataatctg	attactttat	ttcgtgtgtc	tttgatcatc	ttgatagtta	4080
cagaaccgtc	gactctagag	aagccattta	aatcgccgcc	accatggcca	tcatactcgt	4140
acgagcagcg	tcgccggggc	tctccgccgc	cgacagcatc	agccaccagg	ggactctcca	4200
gtgctccacc	ctgctcaaga	cgaagaggcc	ggcggcgcg	cggtggtatg	cctgctcgtc	4260
ccttggcctc	cacccgtggg	aggctggccg	tccctcccc	gccgtctact	ccagcctcgc	4320
cgtcaaccgg	gcgggagagg	ccgtcgtctc	gtccgagcag	aaggctctacg	acgtcgtgct	4380
caagcaggcc	gcattgctca	aacgccagct	gcgcacgccg	gtcctcgacg	ccaggcccca	4440
ggacatggac	atgccacgca	acgggctcaa	ggaagcctac	gaccgctgcg	gcgagatctg	4500
tgaggagtat	gccaagacgt	tttacctcgg	aactatgttg	atgacagagg	agcggcgccg	4560
cgccatatgg	gccatctatg	tgtggtgtag	gaggacagat	gagcttgtag	atgggcaaaa	4620
cgccaactac	attacaccaa	cagctttgga	ccggtggggag	aagagacttg	aggatctgtt	4680
cacgggacgt	ccttacgaca	tgcttgatgc	cgctctctct	gataccatct	caaggttccc	4740
catagacatt	cagccattca	gggacatgat	tgaagggatg	aggagtgatc	ttaggaagac	4800
aaggtataac	aacttcgacg	agctctacat	gtactgctac	tatgttgctg	gaactgtcgg	4860
gttaatgagc	gtaccagtga	tgggcatcgc	atccgagtct	aaagcaacaa	ctgaaagcgt	4920
gtacagtgct	gccttggctc	tcggaattgc	gaaccaactc	acgaacatac	tccgggatgt	4980
tggagaggat	gctagacgag	gaaggatata	tttaccacaa	gatgagcttg	cacaggcagg	5040
gctctctgat	gaggacatct	tcaaaggggt	cgtcacgaac	cggaggagaa	acttcatgaa	5100
gaggcagatc	aagagggcca	ggatgttttt	tgaggaggca	gagagagggg	taactgagct	5160
ctcacaggct	agcagatggc	cagtatgggc	ttccctgttg	ttgtacaggc	agatcctgga	5220
tgagatcgaa	gccaacgact	acaacaactt	cacgaagagg	gcgtatgttg	gtaaagggaa	5280
gaagttgcta	gcacttcctg	tggcatatgg	aaaatcgcta	ctgctcccat	gttcattgag	5340
aaatggccag	acctagggcc	atgcaggccg	atccccgatc	gttcaaacat	ttggcaataa	5400
agtttcttaa	gattgaatcc	tgttgccggg	cttgcgatga	ttatcatata	atttctgttg	5460
aattacgtta	agcatgtaat	aattaacatg	taatgcatga	cgttatttat	gagatggggt	5520
tttatgatta	gagtcccga	attatacatt	taatacgca	tagaaaacaa	aatatagcgc	5580
gcaaactagg	ataaattatc	gcgcgcgggtg	tcatctatgt	tactagatcg		5630

<211> 5180
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> 12422

<400> 3
 gttaatcatg gtgtaggcaa cccaaataaa acaccaaaat atgcacaagg cagtttggtg 60
 tattctgtag tacagacaaa actaaaagta atgaaagaag atgtggtggt agaaaaggaa 120
 acaatatcat gagtaatgtg tgagcattat gggaccacga aataaaaaaga acattttgat 180
 gagtcgtgta tcctcgatga gcctcaaaaag ttctctcacc ccggataaga aacccttaag 240
 caatgtgcaa agtttgcatc ctccactgac ataatgcaaa ataagatatc atcgatgaca 300
 tagcaactca tgcatcatat catgcctctc tcaacctatt cattcctact catctacata 360
 agtatcttca gctaaatggt agaacataaa ccataagtc acgtttgatg agtattaggc 420
 gtgacacatg acaaatcaca gactcaagca agataaagca aaatgatgtg tacataaaac 480
 tccagagcta tatgtcatat tgcaaaaaga ggagagctta taagacaagg catgactcac 540
 aaaaattcat ttgcctttcg tgtcaaaaag aggagggtt tacattatcc atgtcatatt 600
 gcaaaagaaa gagagaaaga acaacacaat gctgcgtaa ttatacatat ctgtatgtcc 660
 atcattatc atccaccttt cgtgtaccac acttcatata tcatgagtca cttcatgtct 720
 ggacattaac aaactctatc ttaacattta gatgcaagag cttttatctc actataaatg 780
 cacgatgatt tctcattggt tctcacaaaa agcattcagt tcattagtcc tacaacaacg 840
 aattcggctt cccaaatcgc cgccaccatg gcttctatga taccctcttc cgctgtgaca 900
 acagtcagcc gtgcctctag ggggcaatcc gccgcagtgg ctccattcgg cggcctcaaa 960
 tccatgactg gattcccagt gaagaaggtc aacactgaca ttacttccat tacaagcaat 1020
 ggtggaagag taaagtgcac gaaaccaact acggttaattg gtgcaggctt cgggtggcctg 1080
 gcactggcaa ttcgtctaca agctgcgggg atccccgtct tactgcttga acaacgtgat 1140
 aaaccggcg gtcgggctta tgtctacgag gatcaggggt ttacctttga tgcaggcccg 1200
 acggttatca ccgatcccag tgccattgaa gaactgtttg cactggcagg aaaacagtta 1260
 aaagagtatg tcgaactgct gccggttacg ccgttttacc gcctgtgttg ggagtcaggg 1320
 aaggctctta attacgataa cgatcaaacc cggctcgaag cgcagattca gcagtttaat 1380
 cccgcgatg tcgaaggcta tcgtcagttt ctggactatt cacgcgcggt gtttaaagaa 1440
 ggctatctga agctcggtag tgtccctttt ttatcgttca gagacatgct tcgcgccgca 1500
 cctcaactgg cgaaactgca ggcatggaga agcgtttaca gtaaggttgc cagttacatc 1560

gaagatgaac atctgcgcca ggcgttttct ttccactcgc tgttggtggg cggcaatccc	1620
ttcgccacct catccattta tacgttgata cacgcgctgg agcgtgagtg gggcgtcttg	1680
tttccgcgtg gcggcaccgg cgcattagtt caggggatga taaagctgtt tcaggatctg	1740
ggtggcgaag tcgtgttaaa cgccagagtc agccatatgg aaacgacagg aaacaagatt	1800
gaagccgtgc atttagagga cggtcgcagg ttcttgacgc aagccgtcgc gtcaaatgca	1860
gatgtggttc atacctatcg cgacctgtta agccagcacc ctgccgcggt taagcagtcc	1920
aacaaactgc agactaagcg catgagtaac tctctgtttg tgctctattt tggtttgaat	1980
caccatcatg atcagctcgc gcatcacacg gtttgtttcg gcccgcgta cgcgagctg	2040
attgacgaaa tttttaatca tgatggcctc gcagaggact tctcacttta tctgcacgcg	2100
ccctgtgtca cggattcgtc actggcgcct gaaggttgcg gcagttacta tgtgttggcg	2160
ccggtgccgc atttaggcac cgcgaacctc gactggacgg ttgagggggc aaaactacgc	2220
gaccgtatth ttgcgtacct tgagcagcat tacatgcctg gcttacggag tcagctggtc	2280
acgcaccgga tgtttacgcc gtttgattht cgcgaccagc ttaatgccta tcatggctca	2340
gcctthtctg tggagcccgt tcttaccag agcgcctggt ttcggccgca taaccgcgat	2400
aaaaccatta ctaatctcta cctggtcggc gcaggcacgc atcccggcgc aggcattcct	2460
ggcgtcatcg gctcggcaaa agcgacagca ggthtgatgc tggaggatct gatttgaggc	2520
catgcaggcc gatccccgat cgttcaaaca tttggcaata aagthtctta agattgaatc	2580
ctgthgcccg tcttgcgatg attatcatat aattthctgt gaattacgtt aagcatgtaa	2640
taattaacat gtaatgcatg acgttattht tgagatgggt thttatgatt agagthccgc	2700
aattatacat ttaatacgcg atagaaaaca aaatatagcg cgcaaactag gataaattat	2760
cgcgcgcggt gtcactatg ttactagatc gggccttaat aagcttgtht atcatggtgt	2820
aggcaacca aataaaacac caaaatatgc acaaggcagt ttgttgtht ctgtagtaca	2880
gacaaaacta aaagtaatga aagaagatgt ggtgttagaa aaggaaacaa tatcatgagt	2940
aatgtgtgag cattatggga ccacgaaata aaaagaacat thtgatgagt cgtgtatcct	3000
cgatgagcct caaaagtht ctcaccccg ataagaaacc cthaagcaat gtgcaaagth	3060
tgcatthtcc actgacataa tgcaaaataa gatatcatcg atgacatagc aactcatgca	3120
tcatatcatg cctctctcaa cctatthatt cctactcatc tacataagta tcttcagcta	3180
aatgttagaa cataaaccga taagtcacgt ttgatgagta ttaggcgtga cacatgacaa	3240
atcacagact caagcaagat aaagcaaat gatgtgtaca taaaactcca gagctatatg	3300
tcatatthgca aaaagaggag agcttataag acaaggcatg actcacaaaa thtcattthg	3360

ctttcgtgtc	aaaaagagga	gggctttaca	ttatccatgt	catattgcaa	aagaaagaga	3420
gaaagaacaa	cacaatgctg	cgtcaattat	acatatctgt	atgtccatca	ttattcatcc	3480
acctttcgtg	taccacactt	catatatcat	gagtcacttc	atgtctggac	attaacaaac	3540
tctatcttaa	catttagatg	caagagcctt	tatctcacta	taaatgcacg	atgatttctc	3600
attgtttctc	acaaaaagca	ttcagttcat	tagtcctaca	acaacgaatt	cggcttccca	3660
aatcgccgcc	accatggcca	tcatactcgt	acgagcagcg	tcgccggggc	tctccgccgc	3720
cgacagcatc	agccaccagg	ggactctcca	gtgctccacc	ctgctcaaga	cgaagaggcc	3780
ggcggcgcg	cggtggatgc	cctgctcgct	ccttggcctc	cacccgtggg	aggctggccg	3840
tccctcccc	gccgtctact	ccagcctcgc	cgtcaacccg	gcgggagagg	ccgtcgtctc	3900
gtccgagcag	aaggtctacg	acgtcgtgct	caagcaggcc	gcattgctca	aacgccagct	3960
gcgcacgccg	gtcctcgacg	ccaggcccca	ggacatggac	atgccacgca	acgggctcaa	4020
ggaagcctac	gaccgctgcg	gcgagatctg	tgaggagtat	gccaagacgt	ttacctcgg	4080
aactatgttg	atgacagagg	agcggcgccg	cgccatatgg	gccatctatg	tgtggtgtag	4140
gaggacagat	gagcttgtag	atgggccaaa	cgccaactac	attacaccaa	cagctttgga	4200
ccggtgggag	aagagacttg	aggatctgtt	cacgggacgt	ccttacgaca	tgcttgatgc	4260
cgctctctct	gataccatct	caaggttccc	catagacatt	cagccattca	gggacatgat	4320
tgaagggatg	aggagtgatc	ttaggaagac	aaggtataac	aacttcgacg	agctctacat	4380
gtactgctac	tatgttgctg	gaactgtcgg	gttaatgagc	gtaccagtga	tgggcatcgc	4440
atccgagtct	aaagcaacaa	ctgaaagcgt	gtacagtgct	gccttggtc	tcggaattgc	4500
gaaccaactc	acgaacatac	tccgggatgt	tggagaggat	gctagacgag	gaaggatata	4560
tttaccacaa	gatgagcttg	cacaggcagg	gctctctgat	gaggacatct	tcaaaggggt	4620
cgtcacgaac	cggtgggagaa	acttcatgaa	gaggcagatc	aagagggcca	ggatgttttt	4680
tgaggaggca	gagagagggg	taactgagct	ctcacaggct	agcagatggc	cagtatgggc	4740
ttccctggtg	ttgtacaggc	agatcctgga	tgagatcgaa	gccaacgact	acaacaactt	4800
cacgaagagg	gcgtatgttg	gtaaagggaa	gaagttgcta	gcacttcctg	tggcatatgg	4860
aaaatcgcta	ctgctcccat	gttcattgag	aaatggccag	acctagggcc	atgcaggccg	4920
atccccgatc	gttcaaacat	ttggcaataa	agtttcttaa	gattgaatcc	tgttgccggt	4980
cttgcgatga	ttatcatata	atttctgttg	aattacgtta	agcatgtaat	aattaacatg	5040
taatgcatga	cgttatttat	gagatgggtt	tttatgatta	gagtcccgca	attatacatt	5100
taatacgcga	tagaaaacaa	aatatagcgc	gcaaactagg	ataaattatc	gcgcgcggtg	5160

tcattctatgt tactagatcg 5180

<210> 4
 <211> 5180
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> 12424

<400> 4
 gttaatcatg gtgtaggcaa cccaaataaa acacccaaat atgcacaagg cagtttgttg 60
 tattctgtag tacagacaaa actaaaagta atgaaagaag atgtggtgtt agaaaaggaa 120
 acaatcatcat gagtaatgtg tgagcattat gggaccacga aataaaaaga acattttgat 180
 gagtcgtgta tcctcgatga gcctcaaaag ttctctcacc ccggataaga aacccttaag 240
 caatgtgcaa agtttgcatt ctccactgac ataatgcaa ataagatatc atcgatgaca 300
 tagcaactca tgcattcatat catgcctctc tcaacctatt cattcctact catctacata 360
 agtatcttca gctaaatgtt agaacataaa ccataagtc acgtttgatg agtattaggc 420
 gtgacacatg acaaatcaca gactcaagca agataaagca aaatgatgtg tacataaaac 480
 tccagagcta tatgtcatat tgcaaaaaga ggagagctta taagacaagg catgactcac 540
 aaaaattcat ttgcctttcg tgtcaaaaag aggagggtt tacattatcc atgtcatatt 600
 gcaaaagaaa gagagaaaga acaacacaat gctgctgcaa ttatacatat ctgtatgtcc 660
 atcattattc atccaccttt cgtgtaccac acttcatata tcatgagtca cttcatgtct 720
 ggacattaac aaactctatc ttaacattta gatgcaagag cttttatctc actataaatg 780
 cagcatgatt tctcattgtt tctcacaaaa agcattcagt tcattagtcc tacaacaacg 840
 aattcggctt cccaaatcgc cgccaccatg gcttctatga tctcctcttc cgctgtgaca 900
 acagtcagcc gtgcctctag ggggcaatcc gccgcagtggt ctccattcgg cggcctcaaa 960
 tccatgactg gattcccagt gaagaaggtc aacactgaca ttacttccat tacaagcaat 1020
 ggtggaagag taaagtgcatt gaaaccaact acggtaattg gtgcaggctt cgggtggcctg 1080
 gcactggcaa ttctgtctaca agctgcgggg atccccgtct tactgcttga acaacgtgat 1140
 aaaccggcg gtcgggctta tgtctacgag gatcaggggt ttacctttga tgcaggcccg 1200
 acggttatca ccgatcccag tgccattgaa gaactgtttg cactggcagg aaaacagtta 1260
 aaagagtatg tcgaactgct gccggttacg ccgttttacc gcctgtgttg ggagtcaggg 1320
 aaggctctta attacgataa cgatcaaacc cggctcgaag cgcagattca gcagtttaat 1380
 cccgcgatg tcgaaggcta tcgtcagttt ctggactatt cacgcgcggt gtttaaagaa 1440

ggctatctga agctcggtag	tgtccctttt ttatcgttca	gagacatgct tcgcgccgca	1500
cctcaactgg cgaaactgca	ggcatggaga agcgtttaca	gtaagggtgc cagttacatc	1560
gaagatgaac atctgcgcca	ggcgttttct ttccactcgc	tgttggtggg cggcaatccc	1620
ttcgccacct catccattta	tacgttgata cacgcgctgg	agcgtgagtg gggcgtctgg	1680
tttcgcgctg gcggcaccgg	cgcattagtt caggggatga	taaagctggt tcaggatctg	1740
ggtggcgaag tcgtgttaaa	cgccagagtc agccatatgg	aaacgacagg aaacaagatt	1800
gaagccgtgc atttagagga	cggtcgcagg ttccctgacgc	aagccgtcgc gtcaaagtca	1860
gatgtggttc atacctatcg	cgacctgtta agccagcacc	ctgccgcggt taagcagtcc	1920
aacaaactgc agactaagcg	catgagtaac tctctgtttg	tgctctattt tggtttgaat	1980
caccatcatg atcagctcgc	gcatcacacg gtttgtttcg	gcccgcgtta ccgcgagctg	2040
attgacgaaa tttttaatca	tgatggcctc gcagaggact	tctcacttta tctgcacgcg	2100
ccctgtgtca cggattcgtc	actggcgctt gaaggttgcg	gcagttacta tgtgttggcg	2160
ccggtgccgc atttaggcac	cgcgaacctc gactggacgg	ttgagggggc aaaactacgc	2220
gaccgtatth ttgcgtacct	tgagcagcat tacatgcctg	gcttacggag tcagctggtc	2280
acgcaccgga tgtttacgcc	gtttgatttt cgcgaccagc	ttaatgccta tcatggctca	2340
gccttttctg tggagcccgt	tcttaccag agcgctgggt	ttcggccgca taaccgcgat	2400
aaaaccatta ctaatctcta	cctggtcggc gcaggcacgc	atcccggcgc aggcatcct	2460
ggcgtcatcg gctcggcaaa	agcgacagca ggtttgatgc	tggaggatct gatttgaggc	2520
catgcaggcc gatccccgat	cgttcaaaca tttggcaata	aagtttctta agattgaatc	2580
ctggtgccgg tcttgcgatg	attatcatat aatttctggt	gaattacgtt aagcatgtaa	2640
taattaacat gtaatgcatg	acgttatthta tgagatgggt	ttttatgatt agagtccgc	2700
aattatacat ttaatacgcg	atagaaaaca aaatatagcg	cgcaaactag gataaattat	2760
cgcgcgcggt gtcactatg	ttactagatc gggccttaat	aagcttgthta atcatgggtg	2820
aggcaacca aataaaacac	caaaatatgc acaaggcagt	ttgttgatt ctgtagtaca	2880
gacaaaacta aaagtaatga	aagaagatgt ggtgttagaa	aaggaaacaa tatcatgagt	2940
aatgtgtgag cattatggga	ccacgaaata aaaagaacat	tttgatgagt cgtgtatcct	3000
cgatgagcct caaaagttct	ctcaccgccg ataagaaacc	cttaagcaat gtgcaaagtt	3060
tgcatthctc actgacataa	tgcaaaataa gatatcatcg	atgacatagc aactcatgca	3120
tcatatcatg cctctctcaa	cctattcatt cctactcatc	tacataagta tcttcagcta	3180
aatgttagaa cataaaccca	taagtcacgt ttgatgagta	ttaggcgtga cacatgacaa	3240

atcacagact	caagcaagat	aaagcaaaat	gatgtgtaca	taaaactcca	gagctatatg	3300
tcatattgca	aaaagaggag	agcttataag	acaaggcatg	actcacaaaa	attcatttgc	3360
ctttcgtgtc	aaaaagagga	gggctttaca	ttatccatgt	catattgcaa	aagaaagaga	3420
gaaagaacaa	cacaatgctg	cgtcaattat	acatatctgt	atgtccatca	ttattcatcc	3480
acctttcgtg	taccacactt	catatatcat	gagtcacttc	atgtctggac	attaacaaac	3540
tctatcttaa	catttagatg	caagagcctt	tatctcacta	taaatgcacg	atgattttctc	3600
attgtttctc	acaaaaagca	ttcagttcat	tagtcctaca	acaacgaatt	cggcttccca	3660
aatcgccgcc	accatggcca	tcatactcgt	acgagcagcg	tcgccggggc	tctccgccgc	3720
cgacagcatc	agccaccagg	ggactctcca	gtgctccacc	ctgctcaaga	cgaagaggcc	3780
ggcggcgcg	cgggtggatg	cctgctcgct	ccttggcctc	caccctgggg	aggctggccg	3840
tccctcccc	gccgtctact	ccagcctgcc	cgtcaacccg	gcgggagagg	ccgtcgtctc	3900
gtccgagcag	aaggctctacg	acgtcgtgct	caagcaggcc	gcattgctca	aacgccagct	3960
gcgcacgccg	gtcctcgacg	ccaggcccca	ggacatggac	atgccacgca	acgggctcaa	4020
ggaagcctac	gaccgctgcg	gcgagatctg	tgaggagtat	gccaaagacgt	tttacctcgg	4080
aactatgttg	atgacagagg	agcggcgccg	cgccatatgg	gccatctatg	tgtggtgtag	4140
gaggacagat	gagcttgtag	atggggccaaa	cgccaactac	attacaccaa	cagctttgga	4200
ccggtggggag	aagagacttg	aggatctgtt	cacgggacgt	ccttacgaca	tgcttgatgc	4260
cgctctctct	gataccatct	caaggttccc	catagacatt	cagccattca	gggacatgat	4320
tgaagggatg	aggagtgatc	ttaggaagac	aaggtataac	aacttcgacg	agctctacat	4380
gtactgctac	tatgttgctg	gaactgtcgg	gttaatgagc	gtacctgtga	tgggcatcgc	4440
aaccgagtct	aaagcaacaa	ctgaaagcgt	atacagtgtc	gccttggctc	tgggaattgc	4500
gaaccaactc	acgaacatac	tccgggatgt	tggagaggat	gctagaagag	gaaggatata	4560
tttaccacaa	gatgagcttg	cacaggcagg	gctctctgat	gaggacatct	tcaaaggggt	4620
cgtcacgaac	cgggtggagaa	acttcatgaa	gaggcagatc	aagagggcca	ggatgttttt	4680
tgaggaggca	gagagagggg	taactgagct	ctcacaggct	agcagatggc	cagtatgggc	4740
ttccctgttg	ttgtacaggc	agatcctgga	tgagatcgaa	gccaacgact	acaacaactt	4800
cacgaagagg	gcgtatgttg	gtaaagggaa	gaagttgcta	gcacttcctg	tggcatatgg	4860
aaaatcgcta	ctgctcccat	gttcattgag	aaatggccag	acctagggcc	atgcaggccg	4920
atccccgatc	gttcaaacat	ttggcaataa	agtttcttaa	gattgaatcc	tgttgccggt	4980
cttgcgatga	ttatcatata	atttctgttg	aattacgtta	agcatgtaat	aattaacatg	5040

taatgcatga cgttatztat gagatgggtt tttatgatta gagtcccgca attatacatt	5100
taatacgcga tagaaaacaa aatatagcgc gcaaactagg ataaattatc gcgcgcggtg	5160
tcattctatgt tactagatcg	5180

<210> 5
 <211> 5653
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Glu-Cat-SSU-crtI-Nos-Glu-Cat-Psy (Maize)-nos

<400> 5	
gttaatcatg gtgtaggcaa cccaaataaa acaccaaagt atgcacaagg cagtttggtg	60
tattctgtag tacagacaaa actaaaagta atgaaagaag atgtggtggt agaaaaggaa	120
acaatatcat gagtaatgtg tgagcattat gggaccacga aataaaaaga acattttgat	180
gagtcgtgta tcctcgatga gcctcaaaaag ttctctcacc ccggataaga aacccttaag	240
caatgtgcaa agtttgcatt ctccactgac ataatgcaaa ataagatatc atcgatgaca	300
tagcaactca tgcattcatat catgcctctc tcaacctatt cattcctact catctacata	360
agtatcttca gctaaatggt agaacataaa cccataagtc acgtttgatg agtattaggc	420
gtgacacatg acaaatcaca gactcaagca agataaagca aaatgatgtg tacataaaac	480
tccagagcta tatgtcatat tgcaaaaaga ggagagctta taagacaagg catgactcac	540
aaaaattcat ttgcctttcg tgtcaaaaag aggagggtt tacattatcc atgtcatatt	600
gcaaaagaaa gagagaaaga acaacacaat gctgcgtaa ttatacatat ctgtatgtcc	660
atcattattc atccaccttt cgtgtaccac acttcatata tcatgagtca cttcatgtct	720
ggacattaac aaactctatc ttaacattta gatgcaagag cttttatctc actataaatg	780
cacgatgatt tctcattggt tctcacaaaa agcattcagt tcattagtcc tacaacaacg	840
aattcggctt cccgggtaca gggtaaattt ctagtctttc tccttcattt tcttggttag	900
gacccttttc tctttttatt tttttgagct ttgatctttc tttaaactga tctatttttt	960
aattgattgg ttatcgtgta aatattacat agctttaact gataatctga ttactttatt	1020
tcgtgtgtct ttgatcatct tgatagttac agaaccgtcg actctagaga agccatttaa	1080
atcgccgcca ccatggcttc tatgatatcc tcttccgctg tgacaacagt cagccgtgcc	1140
tctagggggc aatccgccgc agtggtcca ttccggcgcc tcaaattccat gactggattc	1200
ccagtgaaga aggtcaacac tgacattact tccattacaa gcaatggtgg aagagtaaag	1260
tgcatggcgg ccgccaaacc aactacggtg attggtgcag gcttcggtgg cctggcactg	1320

gcaattcgtc tacaagctgc ggggatcccc gtcttactgc ttgaacaacg tgataaaccc	1380
ggcggtcggg cttatgtcta cgaggatcag gggtttacct ttgatgcagg cccgacggtt	1440
atcaccgatc ccagtgccat tgaagaactg tttgcactgg caggaaaaca gttaaaagag	1500
tatgtcgaac tgctgccggt tacgccgttt taccgcctgt gttgggagtc agggaaagtc	1560
tttaattacg ataacgatca aacccggctc gaagcgcaga ttcagcagtt taatccccgc	1620
gatgtcgaag gttatcgtca gtttctggac tattcacgcg cggtgtttaa agaaggctat	1680
ctgaagctcg gtactgtccc ttttttatcg ttcagagaca tgcttcgcgc cgcacctcaa	1740
ctggcgaaac tgcaggcatg gagaagcgtt tacagtaagg ttgccagtta catcgaagat	1800
gaacatctgc gccaggcgtt ttctttccac tcgctgttgg tgggcggcaa tcccttcgcc	1860
acctcatcca tttatacgtt gatacacgcg ctggagcgtg agtggggcgt ctggtttccg	1920
cgtggcggca ccggcgcatt agttcagggg atgataaagc tgtttcagga tctgggtggc	1980
gaagtcgtgt taaacgccag agtcagccat atggaaacga caggaaacaa gattgaagcc	2040
gtgcatttag aggacggtcg caggttcctg acgcaagccg tcgcgtaaaa tgcagatgtg	2100
gttcatacct atcgcgacct gttaagccag caccctgccg cggttaagca gtccaacaaa	2160
ctgcagacta agcgcgatgag taactctctg tttgtgctct attttggttt gaatcaccat	2220
catgatcagc tcgcgcatca cacggtttgt ttcggccgcg gttaccgcga gctgattgac	2280
gaaattttta atcatgatgg cctcgcagag gacttctcac tttatctgca cgcgccctgt	2340
gtcacggatt cgtcactggc gcctgaaggt tgcggcagtt actatgtgtt ggccgagggtg	2400
ccgcatttag gcaccgcga cctcgactgg acggttgagg ggccaaaact acgcgaccgt	2460
atttttgcgt accttgagca gcattacatg cctggcttac ggagtcagct ggtcacgcac	2520
cggatgttta cgccgtttga ttttcgcgac cagcttaatg cctatcatgg ctcagccttt	2580
tctgtggagc ccgttcttac ccagagcgcc tggtttcggc cgcataaccg cgataaaacc	2640
attactaatc tctacctggt cggcgcaggc acgcatcccc gcgcaggcat tcctggcgtc	2700
atcggctcgg caaaagcgac agcaggtttg atgctggagg atctgatttg aggtacctcg	2760
acggccatgc aggccgatcc ccgatcgttc aaacatttgg caataaagtt tcttaagatt	2820
gaatcctgtt gccggtcttg cgatgattat catataattt ctgttgaatt acgttaagca	2880
tgtaataatt aacatgtaat gcatgacgtt atttatgaga tgggttttta tgattagagt	2940
cccgaatta tacatttaat acgcgataga aaacaaaata tagcgcgcaa actaggataa	3000
attatcgcgc gcggtgtcat ctatgttact agatcgggcc ttaatcgcaa gcttgtaatt	3060
catggtgtag gcaacccaaa taaaacacca aaatatgcac aaggcagttt gttgtattct	3120

gtagtacaga	caaaactaaa	agtaatgaaa	gaagatgtgg	tgtagaaaa	ggaaacaata	3180
tcatgagtaa	tgtgtgagca	ttatgggacc	acgaaataaa	aagaacattt	tgatgagtcg	3240
tgtatcctcg	atgagcctca	aaagtctct	caccccgat	aagaaaccct	taagcaatgt	3300
gcaaagtttg	cattctccac	tgacataatg	caaaataaga	tatcatcgat	gacatagcaa	3360
ctcatgcatc	atatcatgcc	tctctcaacc	tattcattcc	tactcatcta	cataagtatc	3420
ttcagctaaa	tgtagaaca	taaaccata	agtcacgttt	gatgagtatt	aggcgtgaca	3480
catgacaaat	cacagactca	agcaagataa	agcaaaatga	tgtgtacata	aaactccaga	3540
gctatatgtc	atattgcaaa	aagaggagag	cttataagac	aaggcatgac	tcacaaaaat	3600
tcatttgctc	ttcgtgtcaa	aaagaggagg	gctttacatt	atccatgtca	tattgcaaaa	3660
gaaagagaga	aagaacaaca	caatgctgcg	tcaattatac	atatctgtat	gtccatcatt	3720
attcatccac	ctttcgtgta	ccacacttca	tatatcatga	gtcacttcat	gtctggacat	3780
taacaaactc	tatcttaaca	tttagatgca	agagccttta	tctcactata	aatgcacgat	3840
gattttctcat	tgttttctcac	aaaaagcatt	cagttcatta	gtcctacaac	aacgaattcg	3900
gcttcccggg	tacagggtaa	atttctagtt	tttctccttc	attttcttgg	ttaggaccct	3960
tttctctttt	tatttttttg	agctttgatc	tttctttaaa	ctgatctatt	ttttaattga	4020
ttggttatcg	tgtaaataat	acatagcttt	aactgataat	ctgattactt	tatttcgtgt	4080
gtctttgatc	atcttgatag	ttacagaacc	gtcgactcta	gagaagccat	ttaaatcgcc	4140
gccaccatgg	ccatcatact	cgtacgagca	gcgtcgccgg	ggctctccgc	cgccgacagc	4200
atcagccacc	aggggactct	ccagtgtctc	accctgtctc	agacgaagag	gccggcgggc	4260
cggcggtgga	tgccctgctc	gtccttggc	ctccaccctg	gggaggctgg	ccgtccctcc	4320
cccgccgtct	actccagcct	gcccgtcaac	ccggcgggag	aggccgtcgt	ctcgtccgag	4380
cagaaggtct	acgacgtcgt	gctcaagcag	gccgcattgc	tcaaacgcca	gctgcgcacg	4440
ccggtcctcg	acgccaggcc	ccaggacatg	gacatgccac	gcaacgggct	caaggaagcc	4500
tacgaccgct	gcggcgagat	ctgtgaggag	tatgccaaga	cgttttacct	cggaactatg	4560
ttgatgacag	aggagcggcg	ccgcgccata	tgggccatct	atgtgtggtg	taggaggaca	4620
gatgagcttg	tagatggggc	aaacgccaac	tacattacac	caacagcttt	ggaccggtgg	4680
gagaagagac	ttgaggatct	gttcacggga	cgtccttacg	acatgcttga	tgccgctctc	4740
tctgatacca	tctcaagggt	ccccatagac	attcagccat	tcagggacat	gattgaaggg	4800
atgaggagtg	atcttaggaa	gacaaggtat	aacaacttcg	acgagctcta	catgtactgc	4860
tactatgttg	ctggaactgt	cgggttaatg	agcgtacctg	tgatgggcat	cgcaaccgag	4920

tctaaagcaa caactgaaag cgtatacagt gctgccttgg ctctgggaat tgcgaaccaa	4980
ctcacgaaca tactccggga tgttggagag gatgctagaa gaggaaggat atatttacca	5040
caagatgagc ttgcacaggc agggctctct gatgaggaca tcttcaaagg ggtcgtcacg	5100
aaccggtgga gaaacttcat gaagaggcag atcaagaggg ccaggatggt ttttgaggag	5160
gcagagagag gggtaaatga gctctcacag gctagcagat ggccagtatg ggcttccctg	5220
ttgttgtaca ggcagatcct ggatgagatc gaagccaacg actacaacaa cttcacgaag	5280
agggcgatg ttggtaaagg gaagaagttg ctagcacttc ctgtggcata tggaaaatcg	5340
ctactgctcc catgttcatt gagaaatggc cagacctagg gccatgcagg ccgatccccg	5400
atcgttcaaa catttggcaa taaagtttct taagattgaa tcctgttgcc ggtcttgcca	5460
tgattatcat ataatttctg ttgaattacg ttaagcatgt aataattaac atgtaatgca	5520
tgacgttatt tatgagatgg gtttttatga ttagagtccc gcaattatac atttaatacg	5580
cgatagaaaa caaaatatag cgcgcaaact aggataaatt atcgcgcgcg gtgtcatcta	5640
tgttactaga tcg	5653

<210> 6

<211> 5714

<212> DNA

<213> Artificial Sequence

<220>

<223> 11586

<400> 6

gttaatcatg gtgtaggcaa cccaaataaa acacccaaat atgcacaagg cagtttgttg	60
tattctgtag tacagacaaa actaaaagta atgaaagaag atgtggtggt agaaaaggaa	120
acaatatcat gagtaatgtg tgagcattat gggaccacga aataaaaaga acattttgat	180
gagtcgtgta tcctcgatga gcctcaaaag ttctctcacc ccggataaga aacccttaag	240
caatgtgcaa agtttgcatt ctccactgac ataatgcaaa ataagatatc atcgatgaca	300
tagcaactca tgcatcatat catgcctctc tcaacctatt cattcctact catctacata	360
agtatcttca gctaaatggt agaacataaa ccataagtc acgtttgatg agtattaggc	420
gtgacacatg acaaatcaca gactcaagca agataaagca aaatgatgtg tacataaaac	480
tccagagcta tatgtcatat tgcaaaaaga ggagagctta taagacaagg catgactcac	540
aaaaattcat ttgcctttcg tgtcaaaaag aggagggtt tacattatcc atgtcatatt	600
gcaaaagaaa gagagaaaga acaacacaat gctgcgtcaa ttatacatat ctgtatgtcc	660
atcattattc atccaccttt cgtgtaccac acttcatata tcatgagtca cttcatgtct	720

ggacattaac aaactctatc ttaacattta gatgcaagag cctttatctc actataaatg	780
cacgatgatt tctcattggt tctcacaaaa agcattcagt tcattagtcc tacaacaacg	840
aattcggctt cccgggtaca gggtaaattt ctagtttttc tccttcattt tcttggttag	900
gacccttttc tctttttatt tttttgagct ttgatctttc tttaaactga tctatttttt	960
aattgattgg ttatcgtgta aatattacat agctttaact gataatctga ttactttatt	1020
tcgtgtgtct ttgatcatct tgatagttac agaaccgtcg actctagaga agccatttaa	1080
atcgccgcca ccatggcttc tatgatatcc tcttccgctg tgacaacagt cagccgtgcc	1140
tctagggggc aatccgccgc agtgggtcca ttcggcggcc tcaaaccat gactggattc	1200
ccagtgaaga aggtcaacac tgacattact tccattacaa gcaatgggtg aagagtaaag	1260
tgcatggcgg ccgccaaacc aactacggta attggtgcag gcttcggtgg cctggcactg	1320
gcaattcgtc tacaagctgc ggggatcccc gtcttactgc ttgaacaacg tgataaaccc	1380
ggcggtcggg cttatgtcta cgaggatcag gggtttacct ttgatgcagg cccgacggtt	1440
atcaccgatc ccagtgccat tgaagaactg tttgcactgg caggaaaaca gttaaaagag	1500
tatgtcgaac tgctgccggt tacgccgttt taccgcctgt gttgggagtc agggaaggtc	1560
tttaattacg ataacgatca aaccgggtc gaagcgcaga ttcagcagtt taatccccgc	1620
gatgtcgaag gttatcgtca gtttctggac tattcacgcg cgggtgttaa agaaggctat	1680
ctgaagctcg gtactgtccc ttttttatcg ttcagagaca tgcttcgcgc cgcacctcaa	1740
ctggcgaaac tgcaggcatg gagaagcgtt tacagtaagg ttgccagtta catcgaagat	1800
gaacatctgc gccaggcgtt ttctttccac tcgctgttgg tgggcggcaa tcccttcgcc	1860
acctcatcca tttatacgtt gatacacgcg ctggagcgtg agtggggcgt ctggtttccg	1920
cgtggcggca ccggcgcatt agttcagggg atgataaagc tgtttcagga tctgggtggc	1980
gaagtcgtgt taaacgccag agtcagccat atggaaacga caggaaacaa gattgaagcc	2040
gtgcatttag aggacggtcg caggttcctg acgcaagccg tcgctcaaaa tgcagatgtg	2100
gttcatacct atcgcgacct gttaagccag caccctgccg cggttaagca gtccaacaaa	2160
ctgcagacta agcgcagtag taactctctg tttgtgctct attttggttt gaatcaccat	2220
catgatcagc tcgcgcatca cacggtttgt ttcggccccg gttaccgcga gctgattgac	2280
gaaattttta atcatgatgg cctcgcagag gacttctcac tttatctgca cgcgccctgt	2340
gtcacggatt cgtcactggc gcctgaaggt tgcggcagtt actatgtgtt ggcgccggtg	2400
ccgcatttag gcaccgcgaa cctcgcactg acggttgagg ggccaaaact acgcgaccgt	2460
atttttgcgt accttgagca gcattacatg cctgggttac ggagtcagct ggtcacgcac	2520

cggatgttta	cgccgtttga	ttttcgcgac	cagcttaatg	cctatcatgg	ctcagccttt	2580
tctgtggagc	ccgttcttac	ccagagcgcc	tggtttcggc	cgcataaccg	cgataaaacc	2640
attactaatc	tctacctggt	cggcgcaggc	acgcatcccc	gcgcaggcat	tcctggcgtc	2700
atcggctcgg	caaaagcgac	agcaggtttg	atgctggagg	atctgatttg	aggtacctcg	2760
acggccatgc	aggccgatcc	ccgatcggtc	aaacatttgg	caataaagtt	tcttaagatt	2820
gaatcctggt	gccggtcttg	cgatgattat	catataattt	ctggtgaatt	acgttaagca	2880
tgtaataatt	aacatgtaat	gcatgacggt	atztatgaga	tgggttttta	tgattagagt	2940
cccgcaatta	tacatttaat	acgcgataga	aaacaaaata	tagcgcgcaa	actaggataa	3000
attatcgcgc	gcggtgtcat	ctatgttact	agatcggggc	ttaaaactga	aggcgggaaa	3060
cgacaatctg	atctctagga	agcttggtta	tcatggtgta	ggcaacccaa	ataaaacacc	3120
aaaatatgca	caaggcagtt	tgttgatttc	tgtagtacag	acaaaactaa	aagtaatgaa	3180
agaagatgtg	gtgttagaaa	aggaaacaat	atcatgagta	atgtgtgagc	attatgggac	3240
cacgaaataa	aaagaacatt	ttgatgagtc	gtgtatcctc	gatgagcctc	aaaagttctc	3300
tcaccccgga	taagaaaccc	ttaagcaatg	tgcaaagttt	gcattctcca	ctgacataat	3360
gcaaaataag	atatcatcga	tgacatagca	actcatgcat	catatcatgc	ctctctcaac	3420
ctattcattc	ctactcatct	acataagtat	cttcagctaa	atgttagaac	ataaacccat	3480
aagtcacggt	tgatgagtat	taggcgtgac	acatgacaaa	tcacagactc	aagcaagata	3540
aagcaaaatg	atgtgtacat	aaaactccag	agctatatgt	catattgcaa	aaagaggaga	3600
gcttataaga	caaggcatga	ctcacaaaaa	ttcatttgcc	tttcgtgtca	aaaagaggag	3660
ggctttacat	tatccatgtc	atattgcaaa	agaaagagag	aaagaacaac	acaatgctgc	3720
gtcaattata	catatctgta	tgtccatcat	tattcatcca	cctttcgtgt	accacacttc	3780
atatatcatg	agtcacttca	tgtctggaca	ttaacaaact	ctatcttaac	atttagatgc	3840
aagagccttt	atctcactat	aatgcacga	tgattttctca	ttgtttctca	caaaaagcat	3900
tcagttcatt	agtcctacaa	caacgaattc	ggcttcccgg	gtacagggta	aattttctagt	3960
ttttctcctt	cattttcttg	gttaggacct	ttttctcttt	ttattttttt	gagctttgat	4020
ctttctttta	actgatctat	tttttaattg	attgggtatc	gtgtaaatat	tacatagctt	4080
taactgataa	tctgattact	ttatttcgtg	tgtctttgat	catcttgata	gttacagaac	4140
cgtcgactct	agagaagcca	tttaaactgc	cgccaccatg	gcggccatca	cgctcctacg	4200
ttcagcgtct	cttcggggcc	tctccgacgc	cctcgcccgg	gacgctgctg	ccgtccaaca	4260
tgtctgctcc	tcctacctgc	ccaacaacaa	ggagaagaag	aggaggtgga	tcctctgctc	4320

gctcaagtac gcctgccttg gcgtcgaccc tgccccgggc gagattgccc ggacctcgcc 4380
ggtgtactcc agcctcaccg tcacccctgc tggagaggcc gtcattctct cggagcagaa 4440
ggtgtacgac gtcgtcctca agcaggcagc attgctcaaa cgccacctgc gccacaacc 4500
acacaccatt cccatcggtc ccaaggacct ggacctgcca agaaacggcc tcaagcaggc 4560
ctatcatcgc tgcggagaga tctgcgagga gtatgccaa accttttacc ttggaactat 4620
gctcatgacg gaggaccgac ggcgcgccat atgggccatc tatgtgtggt gtaggaggac 4680
agatgagctt gtagatggac caaatgcctc gcacatcaca ccgtcagccc tggaccggtg 4740
ggagaagagg cttgatgatc tcttcaccgg acgcccctac gacatgcttg atgctgcact 4800
ttctgatacc atctccaagt ttcctataga tattcagcct ttcagggaca tgatagaagg 4860
gatgcggtca gacctcagaa agactagata caagaacttc gacgagctct acatgtactg 4920
ctactatgtt gctggaactg tggggcta at gagtgcttct gtgatgggta ttgcacccga 4980
gtcgaaggca acaactgaaa gtgtgtacag tgctgctttg gctctcggca ttgcaaacca 5040
gctcaciaat atactccgtg acgttggaga ggacgcgaga agaggggagga tatatttacc 5100
acaagatgaa cttgcagagg cagggctctc tgatgaggac atcttcaatg gcgttgtgac 5160
taacaaatgg agaagcttca tgaagagaca gatcaagaga gctaggatgt tttttgagga 5220
ggcagagaga ggggtgaccg agctcagcca ggcaagccgg tggccggtct gggcgtctct 5280
gttggttatac cggcaaattc ttgacgagat agaagcaaac gattacaaca acttcacaaa 5340
gagggcgtag gttgggaagg cgaagaaatt gctagcgctt ccagttgcat atggtagatc 5400
attgctgatg ccctactcac tgagaaatag ccagaagtag ggccatgcag gccgatcccc 5460
gatcgttcaa acatttgga ataaagtctt ttaagattga atcctgttgc cggctcttgcg 5520
atgattatca tataatttct gttgaattac gtttaagcatg taataattaa catgtaatgc 5580
atgacgttat ttatgagatg gggtttttatg attagagtcc cgcaattata catttaatac 5640
gcgatagaaa acaaaatata gcgcgcaaac taggataaat tatcgcgcg ggtgtcatct 5700
atgttactag atcg 5714

<210> 7
<211> 5974
<212> DNA
<213> Artificial Sequence

<220>
<223> 7651

<400> 7
gttaatcatg gtgtaggcaa cccaaataaa acaccaaatt atgcacaagg cagtttgttg 60

tattctgtag	tacagacaaa	actaaaagta	atgaaagaag	atgtggtggt	agaaaaggaa	120
acaatatcat	gagtaatgtg	tgagcattat	gggaccacga	aataaaaaga	acattttgat	180
gagtcgtgta	tcctcgatga	gcctcaaaag	ttctctcacc	ccggataaga	aacccttaag	240
caatgtgcaa	agtttgcatt	ctccactgac	ataatgcaa	ataagatatc	atcgatgaca	300
tagcaactca	tgcacatcat	catgcctctc	tcaacctatt	cattcctact	catctacata	360
agtatcttca	gctaaatggt	agaacataaa	cccataagtc	acgtttgatg	agtattaggc	420
gtgacacatg	acaaatcaca	gactcaagca	agataaagca	aatgatgtg	tacataaaac	480
tccagagcta	tatgtcatat	tgcaaaaaga	ggagagctta	taagacaagg	catgactcac	540
aaaaattcat	ttgcctttcg	tgtcaaaaag	aggagggctt	tacattatcc	atgtcatatt	600
gcaaaagaaa	gagagaaaga	acaacacaat	gctgcgtaaa	ttatacatat	ctgtatgtcc	660
atcattattc	atccaccttt	cgtgtaccac	acttcatata	tcattgagtc	cttcatgtct	720
ggacattaac	aaactctatc	ttaacattta	gatgcaagag	cctttatctc	actataaatg	780
cacgatgatt	tctcattggt	tctcacaaaa	agcattcagt	tcattagtcc	tacaacaacg	840
aattcggctt	cccgggtaca	gggtaaaattt	ctagtttttc	tccttcattt	tcttggttag	900
gacccttttc	tctttttatt	tttttgagct	ttgatctttc	tttaaaactga	tctatttttt	960
aattgattgg	ttatcgtgta	aatattacat	agctttaact	gataatctga	ttactttatt	1020
tcgtgtgtct	ttgatcatct	tgatagttac	agaaccgtcg	actctagaga	agccatttaa	1080
atcgccgcca	ccatggcttc	tatgatatcc	tcttccgctg	tgacaacagt	cagccgtgcc	1140
tctagggggc	aatccgccgc	agtggctcca	ttcggcgggc	tcaaaccat	gactggattc	1200
ccagtgaaga	aggtcaacac	tgacattact	tccattacaa	gcaatggtgg	aagagtaaag	1260
tgcatggcgg	ccgccaaacc	aactacggta	attggtgcag	gcttcggtgg	cctggcactg	1320
gcaattcgtc	tacaagctgc	ggggatcccc	gtcttactgc	ttgaacaacg	tgataaaccc	1380
ggcggtcggg	cttatgtcta	cgaggatcag	gggtttacct	ttgatgcagg	cccgcgggtt	1440
atcaccgatc	ccagtgccat	tgaagaactg	tttgactcgg	caggaaaaca	gttaaaagag	1500
tatgtcgaac	tgctgccggt	tacgccgttt	taccgcctgt	gttgggagtc	aggggaaggtc	1560
tttaattacg	ataacgatca	aaccgcgttc	gaagcgcaga	ttcagcagtt	taatccccgc	1620
gatgtcgaag	gttatcgtca	gtttctggac	tattcacgcg	cgggtgttaa	agaaggctat	1680
ctgaagctcg	gtactgtccc	ttttttatcg	ttcagagaca	tgcttcgcgc	cgcacctcaa	1740
ctggcgaaac	tgaggcatg	gagaagcgtt	tacagtaagg	ttgccagtta	catcgaagat	1800
gaacatctgc	gccaggcgtt	ttctttccac	tcgctgttgg	tgggcggcaa	tcccttcgcc	1860

acctcatcca	tttatacggt	gatacacgcg	ctggagcggtg	agtggggcggt	ctggtttccg	1920
cgtggcgga	ccggcgcat	agttcagggg	atgataaagc	tgtttcagga	tctgggtggc	1980
gaagtcgtgt	taaacgccag	agtcagccat	atggaaacga	caggaaacaa	gattgaagcc	2040
gtgcatttag	aggacggtcg	caggttcctg	acgcaagccg	tcgctcaaa	tgcatgtg	2100
gttcatacct	atcgcgacct	gttaagccag	cacctgccg	cggttaagca	gtccaacaaa	2160
ctgcagacta	agcgcatgag	taactctctg	tttgtgtctt	atgttggtt	gaatcaccat	2220
catgatcagc	tcgcgcatca	cacggtttgt	ttcgccccgc	gttaccgca	gctgattgac	2280
gaaattttta	atcatgatgg	cctcgagag	gacttctcac	tttatctgca	cgcgccctgt	2340
gtcacggatt	cgtcactggc	gcctgaaggt	tgccgaggt	actatgtgtt	ggcgccgggtg	2400
ccgcatttag	gcaccgcga	cctcgactgg	acggttgagg	ggccaaaact	acgcgaccgt	2460
atgtttgctg	accttgagca	gcattacatg	cctggcttac	ggagtcagct	ggtcacgcac	2520
cggatgttta	cgccgtttga	ttttcgcgac	cagcttaatg	cctatcatgg	ctcagccttt	2580
tctgtggagc	ccgttcttac	ccagagcgcc	tggtttcggc	cgcataaccg	cgataaaacc	2640
attactaatc	tctacctggt	cggcgagggc	acgcattccc	gcgcaggcat	tcctggcgctc	2700
atcggtctcg	caaaagcgac	agcaggtttg	atgctggagg	atctgatttg	aggtacctcg	2760
acggccatgc	aggccgatcc	ccgatcggtc	aaacatttgg	caataaagtt	tcttaagatt	2820
gaatcctgtt	gccggtcttg	cgatgattat	catataattt	ctgttgaatt	acgttaagca	2880
tgtaataatt	aacatgtaat	gcatgacggt	atztatgaga	tgggttttta	tgattagagt	2940
cccgcaatta	tacatttaat	acgcgataga	aaacaaaata	tagcgcgcaa	actaggataa	3000
attatcgcg	gcggtgtcat	ctatgttact	agatcgggcc	ttaatgttcg	ggcggaacat	3060
cgcaagcttg	ttaatcatgg	tgtaggcaac	ccaaataaaa	caccaaata	tgacaaggc	3120
agtttggtgt	attctgtagt	acagacaaaa	ctaaaagtaa	tgaaagaaga	tgtggtgtta	3180
gaaaaggaaa	caatatcatg	agtaatgtgt	gagcattatg	ggaccacgaa	ataaaaagaa	3240
cattttgatg	agtcgtgtat	cctcgatgag	cctcaaaagt	tctctcacc	cggataagaa	3300
acccttaagc	aatgtgcaaa	gtttgcattc	tccactgaca	taatgcaaaa	taagatatca	3360
tcgatgacat	agcaactcat	gcatcatatc	atgcctctct	caacctattc	attcctactc	3420
atctacataa	gtatcttcag	ctaaatgtta	gaacataaac	ccataagtca	cgtttgatga	3480
gtattaggcg	tgacacatga	caaatcacag	actcaagcaa	gataaagcaa	aatgatgtgt	3540
acataaaact	ccagagctat	atgtcatatt	gcaaaaagag	gagagcttat	aagacaaggc	3600
atgactcaca	aaaattcatt	tgcccttcgt	gtcaaaaaga	ggagggtttt	acattatcca	3660

tgtcatattg	caaaagaaag	agagaaagaa	caacacaatg	ctgcgtcaat	tatacatatc	3720
tgtatgtcca	tcattattca	tccacctttc	gtgtaccaca	cttcatatat	catgagtcac	3780
ttcatgtctg	gacattaaca	aactctatct	taacatttag	atgcaagagc	ctttatctca	3840
ctataaatgc	acgatgattt	ctcattgttt	ctcacaaaa	gcattcagtt	cattagtcct	3900
acaacaacga	attcggcttc	ccgggtacag	ggtaaatttc	tagtttttct	ccttcatttt	3960
cttggttagg	acccttttct	ctttttattt	ttttgagctt	tgatctttct	ttaaactgat	4020
ctatttttta	attgattggg	tatcgtgtaa	atattacata	gctttaactg	ataatctgat	4080
tactttattt	cgtgtgtctt	tgatcatctt	gatagttaca	gaaccgtcga	ctctagagaa	4140
gccatttaaa	tcgccgccac	catgtctgtt	gccttggtat	gggttggttc	tccttggtgac	4200
gtctcaaacg	ggacaggatt	cttggtatcc	gttcgtgagg	gaaaccggat	ttttgattcg	4260
tcggggcgta	ggaatttggc	gtgcaatgag	agaatcaaga	gaggagggtg	aaaacaaagg	4320
tggagttttg	gttcttactt	gggaggagca	caaactggaa	gtggacggaa	attttctgta	4380
cgttctgcta	tcgtggctac	tccggctgga	gaaatgacga	tgatcatcaga	acggatggta	4440
tatgatgtgg	ttttgaggca	ggcagccttg	gtgaagagac	agctgagatc	gaccgatgag	4500
ttagatgtga	agaaggatat	acctattccg	gggactttgg	gcttgttgag	tgaagcatat	4560
gatagggtga	gtgaagtatg	tgacaggtac	gcaaagacgt	tttacttagg	aacgatgcta	4620
atgactccgg	agagaagaaa	ggctatctgg	gcaatatacg	tatggtgcag	gagaacagac	4680
gaacttgttg	atggtccgaa	tgcatcacac	attactccgg	cggccttaga	taggtgggaa	4740
gacaggctag	aagatgtttt	cagtggacgg	ccatttgaca	tgctcgatgc	tgctttgtcc	4800
gacacagttt	ccaaatttcc	agttgatatt	cagccattca	gagatatgat	tgaaggaatg	4860
cgtatggact	tgaggaagtc	aagatacaga	aactttgacg	aactatacct	atattgttat	4920
tacgttgctg	gtacggttgg	gttgatgagt	gttccaatta	tgggcatcgc	acctgaatca	4980
aaggcaacaa	cggagagcgt	atataatgct	gctttggctt	tggggatcgc	aatcagctg	5040
accaacatac	ttagagatgt	tggagaagat	gccagaagag	gaagagtcta	tttgccctcaa	5100
gatgaattag	cacaggcagg	tctatccgac	gaagacatat	ttgctggaag	agtgaccgat	5160
aatggagaa	tcttcatgaa	gaaacaaatt	cagagggcaa	gaaagttctt	tgacgaggca	5220
gagaaaggag	tgaccgaatt	gagcgcagct	agtagatggc	ctgtgttggc	atctctgctg	5280
ttgtaccgca	ggatactgga	cgagatcgaa	gccaatgact	acaacaactt	cacaaagaga	5340
gcttatgtga	gcaaaccaaa	gaagttgatt	gcattaccta	ttgcatatgc	aaaatctctt	5400
gtgccttcta	caagaacatg	aatcaggat	tttatataaa	tcaaggccaa	tgaagccaat	5460

atacatttag	aagaaaaaaa	acaagtgttt	ataaagtaga	attattgaag	gggaggcttg	5520
gagtaactgg	taaagttggt	gtcatgtgac	tgggaagtca	cgggttcaag	ccttggaaac	5580
agcctctggc	agaaatgcaa	ggtaagggtg	cgtacaatat	accgttaagg	tggggtcctt	5640
cccagtacac	cgcgcatagc	gatagattta	gtgcaccggg	tcgccttttt	tctaaagtag	5700
ggccatgcag	gccgatcccc	gatcgttcaa	acatttggca	ataaagtttc	ttaagattga	5760
atcctgttgc	cggctctgcg	atgattatca	tataatttct	gttgaattac	gttaagcatg	5820
taataattaa	catgtaatgc	atgacgttat	ttatgagatg	ggtttttatg	attagagtcc	5880
cgcaattata	catttaatac	gcgatagaaa	acaaaatata	gcgcgcaaac	taggataaat	5940
tatcgcgcgc	ggtgtcatct	atgttactag	atcg			5974

<210> 8
 <211> 5782
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> 7651

<400> 8	
gttaatcatg	gtgtaggcaa cccaaataaa acaccaaagt atgcacaagg cagtttggtg 60
tattctgtag	tacagacaaa actaaaagta atgaaagaag atgtggtggt agaaaaggaa 120
acaatatcat	gagtaatgtg tgagcattat gggaccacga aataaaaaga acattttgat 180
gagtcgtgta	tcctcgatga gcctcaaaag ttctctcacc cgggataaga aacccttaag 240
caatgtgcaa	agtttgcatt ctccactgac ataatgcaaa ataagatatc atcgatgaca 300
tagcaactca	tgcacatcat catgcctctc tcaacctatt cattcctact catctacata 360
agtatcttca	gctaaatggt agaacataaa ccataagtc acgtttgatg agtattaggc 420
gtgacacatg	acaaatcaca gactcaagca agataaagca aaatgatgtg tacataaaac 480
tccagagcta	tatgtcatat tgcaaaaaga ggagagctta taagacaagg catgactcac 540
aaaaattcat	ttgcctttcg tgtcaaaaag aggagggtt tacattatcc atgtcatatt 600
gcaaaagaaa	gagagaaaga acaacacaat gctgcgtcaa ttatacatat ctgtatgtcc 660
atcattatcc	atccaccttt cgtgtaccac acttcatata tcatgagtca cttcatgtct 720
ggacattaac	aaactctatc ttaacattta gatgcaagag cctttatctc actataaatg 780
cacgatgatt	tctcattggt tctcacaaaa agcattcagt tcattagtcc tacaacaacg 840
aattcggctt	cccgggtaca gggtaaattt ctagtttttc tccttcattt tcttggttag 900
gacccttttc	tcttttttatt tttttgagct ttgatctttc tttaaactga tctatttttt 960

aattgattgg	ttatcgtgta	aatattacat	agctttaact	gataatctga	ttactttatt	1020
tcgtgtgtct	ttgatcatct	tgatagttac	agaaccgctc	actctagaga	agccatttaa	1080
atcgccgcca	ccatggcttc	tatgatatcc	tcttccgctg	tgacaacagt	cagccgtgcc	1140
tctagggggc	aatccgccgc	agtggctcca	ttcggcggcc	tcaaatccat	gactggattc	1200
ccagtgaaga	aggtcaacac	tgacattact	tccattacaa	gcaatggtgg	aagagtaaag	1260
tgcatggcgg	ccgccaaacc	aactacggta	attggtgcag	gcttcggtgg	cctggcactg	1320
gcaattcgtc	tacaagctgc	ggggatcccc	gtcttactgc	ttgaacaacg	tgataaaccc	1380
ggcggtcggg	cttatgtcta	cgaggatcag	gggtttacct	ttgatgcagg	cccgcagggt	1440
atcacccgatc	ccagtgccat	tgaagaactg	tttgactctg	caggaaaaca	gttaaaagag	1500
tatgtcgaac	tgctgccggt	tacgccgttt	taccgcctgt	gttgggagtc	aggggaagtc	1560
tttaattacg	ataacgatca	aaccgggtc	gaagcgcaga	ttcagcagtt	taatccccgc	1620
gatgtcgaag	gttatcgtca	gtttctggac	tattcacgcg	cggtgtttaa	agaaggctat	1680
ctgaagctcg	gtactgtccc	ttttttatcg	ttcagagaca	tgcttcgcgc	cgcacctcaa	1740
ctggcgaaac	tgaggcatg	gagaagcgtt	tacagtaagg	ttgccagtta	catcgaagat	1800
gaacatctgc	gccaggcgtt	ttctttccac	tcgctgttgg	tgggcggcaa	tcccttcgcc	1860
acctcatcca	tttatacgtt	gatacacgcg	ctggagcgtg	agtggggcgt	ctggtttccg	1920
cgtggcgcca	ccggcgcatt	agttcagggg	atgataaagc	tgtttcagga	tctgggtggc	1980
gaagtcgtgt	taaacgccag	agtcagccat	atggaaacga	caggaaacaa	gattgaagcc	2040
gtgcatttag	aggacggctc	caggttcctg	acgcaagccg	tcgctcaaaa	tgcatgatgt	2100
gttcatacct	atcgcgacct	gttaagccag	cacctgccc	cggttaagca	gtccaacaaa	2160
ctgcagacta	agcgcatgag	taactctctg	tttgtgctct	attttggttt	gaatcaccat	2220
catgatcagc	tcgcgcatca	cacggtttgt	ttcggccccg	gttaccgcga	gctgattgac	2280
gaaattttta	atcatgatgg	cctcgagag	gacttctcac	tttatctgca	cgcgccctgt	2340
gtcacggatt	cgtcactggc	gcctgaaggt	tgcggcagtt	actatgtgtt	ggcgccggtg	2400
ccgcatttag	gcaccgcgaa	cctcgactgg	acggttgagg	ggccaaaact	acgcgaccgt	2460
atttttgctg	accttgagca	gcattacatg	cctggcttac	ggagtcagct	ggtcacgcac	2520
cggatgttta	cgccgtttga	ttttcgcgac	cagcttaatg	cctatcatgg	ctcagccttt	2580
tctgtggagc	ccgttcttac	ccagagcgcc	tggtttcggc	cgcataaccg	cgataaaacc	2640
attactaatc	tctacctggt	cggcgaggc	acgcatcccc	gcgcaggcat	tcctggcgctc	2700
atcggtcgg	caaaagcgac	agcaggtttg	atgctggagg	atctgatttg	aggtacctcg	2760

acggccatgc aggccgatcc ccgatcgttc aaacatttgg caataaagtt tcttaagatt	2820
gaatcctgtt gccggtcttg cgatgattat catataatct ctgttgaatt acgttaagca	2880
tgtaataatt aacatgtaat gcatgacgtt atttatgaga tgggttttta tgattagagt	2940
cccgcaatta tacatttaat acgcgataga aaacaaaata tagcgcgcaa actaggataa	3000
attatcgcgc gcggtgtcat ctatgttact agatcgggcc ttaatcgcaa gcttgттаат	3060
catggtgtag gcaacccaaa taaaacacca aaatatgcac aaggcagttt gttgtattct	3120
gtagtacaga caaaactaaa agtaatgaaa gaagatgtgg tgtagaaaa ggaaacaata	3180
tcatgagtaa tgtgtgagca ttatgggacc acgaaataaa aagaacattt tgatgagtcg	3240
tgtatcctcg atgagcctca aaagttctct caccgccgat aagaaaccct taagcaatgt	3300
gcaaagtttg cattctccac tgacataatg caaaataaga tatcatcgat gacatagcaa	3360
ctcatgcac atatcatgcc tctctcaacc tattcattcc tactcatcta cataagtatc	3420
ttcagctaaa tgtagaaca taaaccata agtcacgttt gatgagtatt aggcgtgaca	3480
catgacaaat cacagactca agcaagataa agcaaaatga tgtgtacata aaactccaga	3540
gctatatgtc atattgcaaa aagaggagag cttataagac aaggcatgac tcacaaaaat	3600
tcatttgcct ttcgtgtcaa aaagaggagg gctttacatt atccatgtca tattgcaaaa	3660
gaaagagaga aagaacaaca caatgctgcg tcaattatac atatctgtat gtccatcatt	3720
attcatccac ctttcgtgta ccacacttca tatatcatga gtcacttcat gtctggacat	3780
taacaaactc tatcttaaca tttagatgca agagccttta tctcactata aatgcacgat	3840
gatttctcat tgtttctcac aaaaagcatt cagttcatta gtcctacaac aacgaattcg	3900
gcttcccggg tacagggtaa atttctagtt tttctcctc attttcttgg ttaggaccct	3960
tttctctttt tatttttttg agctttgatc tttctttaaa ctgatctatt ttttaattga	4020
ttggttatcg tgtaaatatt acatagcttt aactgataat ctgattactt tatttcgtgt	4080
gtctttgatc atcttgatag ttacagaacc gtcgactcta gagaagccat ttaaategcc	4140
gccaccatgt ctgttgctt gttatgggtt gtttctcctt gtgacgtctc aaatgggaca	4200
agtttcatgg aatcagtcgg ggagggaaac cgtttttttg attcatcgag gcataggaat	4260
ttggtgtcca atgagagaat caatagaggt ggtggaaagc aaactaataa tggacggaaa	4320
tttctgttac ggtctgctat tttggctact ccatctggag aacggacgat gacatcggaa	4380
cagatggtct atgatgtgg tttgaggcag gcagccttgg tgaagaggca actgagatct	4440
accaatgagt tagaagtga gccggatata cctattccgg ggaatttggg cttgttgagt	4500
gaagcatatg ataggtgtgg tgaagtatgt gcagagtatg caaagacgtt taacttagga	4560

actatgctaa tgactccccga gagaagaagg gctatctggg caatatatgt atgggtgcaga	4620
agaacagatg aacttggtga tggcccaaac gcatcatata ttaccccggc agccttagat	4680
aggtgggaaa ataggctaga agatgttttc aatgggcggc catttgacat gctcgatggt	4740
gctttgtccg atacagtttc taactttcca gttgatattc agccattcag agatatgatt	4800
gaaggaatgc gtatggactt gagaaaaatcg agatacaaaa acttcgacga actatacctt	4860
tattgttatt atgttgctgg tacggttggg ttgatgagtg ttccaattat gggtatcgcc	4920
cctgaatcaa aggcaacaac agagagcgta tataatgctg ctttggctct ggggatcgca	4980
aatcaattaa ctaacatact cagagatggt ggagaagatg ccagaagagg aagagtctac	5040
ttgcctcaag atgaattagc acaggcaggt ctatccgatg aagatatatt tgctggaagg	5100
gtgaccgata aatggagaat ctttatgaag aaacaaatac atagggcaag aaagttcttt	5160
gatgaggcag agaaaggcgt gacagaattg agctcagcta gtagattccc tgtatgggca	5220
tctttggtct tgtaccgcaa aatactagat gagattgaag ccaatgacta caacaacttc	5280
acaaagagag catatgtgag caaatcaaag aagttgattg cattacctat tgcatatgca	5340
aaatctcttg tgctcctac aaaaactgcc tctcttcaaa gataaagcat gaaatgaaga	5400
tatatatata tatatatata gcaatataca ttagaagaaa aaaaggaaga agaaatgttg	5460
ttgtattgat ataaatgtat atcataaata ttaggttgta gtaacattgg ccatgcaggc	5520
cgatccccga tcgttcaaac atttggcaat aaagtttctt aagattgaat cctgttgccg	5580
gtcttgcat gattatcata taatttctgt tgaattacgt taagcatgta ataattaaca	5640
tgtaatgcat gacgttattt atgagatggg tttttatgat tagagtcccg caattataca	5700
tttaatacgc gatagaaaac aaaatatagc gcgcaaacta ggataaatta tcgcgcgcgg	5760
tgatcatctat gttactagat cg	5782

<210> 9
 <211> 5551
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Glu-Cat-SSU-crtI-Nos-Glu-Cat-SSU-Psy (crtB) -nos

<400> 9	
gttaatcatg gtgtaggcaa cccaaataaa acaccaaagt atgcacaagg cagtttggtg	60
tattctgtag tacagacaaa actaaaagta atgaaagaag atgtggtgtt agaaaaggaa	120
acaatatcat gagtaatgtg tgagcattat gggaccacga aataaaaaga acattttgat	180
gagtcgtgta tcctcgatga gcctcaaaag ttctctcacc ccgataaga aacccttaag	240

caatgtgcaa agtttgcatt ctccactgac ataatgcaaa ataagatatc atcgatgaca	300
tagcaactca tgcacatcat catgcctctc tcaacctatt cattcctact catctacata	360
agtatcttca gctaaatggt agaacataaa cccataagtc acgtttgatg agtattaggg	420
gtgacacatg acaaatcaca gactcaagca agataaagca aaatgatgtg tacataaaac	480
tccagagcta tatgtcatat tgcaaaaaga ggagagctta taagacaagg catgactcac	540
aaaaattcat ttgcctttcg tgtcaaaaag aggagggtt tacattatcc atgtcatatt	600
gcaaaagaaa gagagaaaga acaacacaat gctgcgtaa ttatacatat ctgtatgtcc	660
atcattatcc atccaccttt cgtgtaccac acttcatata tcatgagtca cttcatgtct	720
ggacattaac aaactctatc ttaacattta gatgcaagag ctttatctc actataaatg	780
cacgatgatt tctcattggt tctcacaaaa agcattcagt tcattagtcc tacaacaacg	840
aattcggctt cccgggtaca gggtaaattt ctagtttttc tccttcattt tcttggttag	900
gacccttttc tctttttatt tttttgagct ttgatctttc tttaaactga tctatttttt	960
aattgattgg ttatcgtgta aatattacat agctttaact gataatctga ttactttatt	1020
tcgtgtgtct ttgatcatct tgatagttac agaaccgtcg actctagaga agccatttaa	1080
atcgccgcca ccatggcttc tatgatatcc tcttcgctg tgacaacagt cagccgtgcc	1140
tctagggggc aatccgccc agtggtcca ttcggcgcc tcaaaccat gactggattc	1200
ccagtgaaga aggtcaacac tgacattact tccattacaa gcaatggtgg aagagtaaag	1260
tgcatggcgg ccgccaacc aactacggtt attggtgcag gcttcggtgg cctggcactg	1320
gcaattcgtc tacaagctgc ggggatcccc gtcttactgc ttgaacaacg tgataaaccc	1380
ggcggtcggg cttatgtcta cgaggatcag gggtttacct ttgatgcagg cccgacggtt	1440
atcaccgatc ccagtgccat tgaagaactg tttgactgg caggaaaaca gttaaaagag	1500
tatgtcgaac tgctgccgtt tacgccgtt taccgcctgt gttgggagtc aggggaaggtc	1560
tttaattacg ataacgatca aaccgggtc gaagcgcaga ttcagcagtt taatccccgc	1620
gatgtcgaag gttatcgtca gtttctggac tattcacgcg cggtgtttaa agaaggctat	1680
ctgaagctcg gtactgtccc ttttttatcg ttcagagaca tgcttcgcgc cgcacctcaa	1740
ctggcgaaac tgcaggcatg gagaagcgtt tacagtaagg ttgccagtta catcgaagat	1800
gaacatctgc gccaggcgtt ttctttccac tcgctgttgg tgggcggcaa tcccttcgcc	1860
acctcatcca ttatacgtt gatacacgcg ctggagcgtg agtggggcgt ctggtttccg	1920
cgtggcggca ccggcgcatt agttcagggg atgataaagc tgtttcagga tctgggtggc	1980
gaagtcgtgt taaacgccag agtcagccat atggaaacga caggaaacaa gattgaagcc	2040

gtgcatttag	aggacggtcg	caggttcctg	acgcaagccg	tcgcgtaaaa	tgcagatgtg	2100
gttcatacct	atcgcgacct	gttaagccag	cacctgccc	cggttaagca	gtccaacaaa	2160
ctgcagacta	agcgcatgag	taactctctg	tttgtgctct	atdddggddd	gaatcaccat	2220
catgatcagc	tcgcgcatca	cacggtdttd	ttcgccccg	gttaccgcga	gctgattgac	2280
gaaattdttd	atcatgatgg	cctcgagag	gacttctcac	tttatctgca	cgcgccctgt	2340
gtcacggatt	cgctactggc	gcctgaaggt	tgcggcagtt	actatgtgtd	ggcgccggtg	2400
ccgcatttag	gcaccgcgaa	cctcgactgg	acggttgagg	ggccaaaact	acgcgaccgt	2460
attdttdgct	accttgagca	gcattacatg	cctggcttac	ggagtcagct	ggtcacgcac	2520
cggatgttda	cgccgttdga	ttttdcgag	cagcttaatg	cctatcatgg	ctcagccttd	2580
tctgtggagc	ccgttdctac	ccagagcgcc	tggttdcgcc	cgcataaccg	cgataaaaacc	2640
attactaatc	tctacctggt	cggcgcaggc	acgcattccc	gcgcaggcat	tcctggcgtc	2700
atcggtctcg	caaaagcgac	agcaggttdg	atgctggagg	atctgatttd	aggtacctcg	2760
acggccatgc	aggccgatcc	ccgatcgtdc	aaacatttdg	caataaaagt	tdttaaagatt	2820
gaatcctgtd	gccggtcttd	cgatgattat	catataattd	ctgtdgaatt	acgttaagca	2880
tgtaataatt	aacatgtaat	gcatgacgtd	attdatgaga	tggttdttda	tgattagagt	2940
cccgcaatta	tacatttaat	acgcgataga	aaacaaaata	tagcgcgcaa	actaggataa	3000
attatcgcg	gcggtgtcat	ctatgttact	agatcgggcc	tdaatcgcaa	gcttdgttaat	3060
catggtgtag	gcaacccaaa	taaaacacca	aaatatgcac	aaggcagtdt	gtdgtattct	3120
gtagtacaga	caaaactaaa	agtaatgaaa	gaagatgtgg	tgtagaaaaa	ggaaacaata	3180
tcatgagtaa	tgtgtgagca	ttatgggacc	acgaaataaa	aagaacattd	tgatgagtcg	3240
tgtatcctcg	atgagcctca	aaagtdctct	caccccgcat	aagaaaccct	taagcaatgt	3300
gcaaagtdtd	cattctccac	tgacataatg	caaaataaga	tatcatcgat	gacatagcaa	3360
ctcatgcatc	atatcatgcc	tctctcaacc	tattcattcc	tactcatcta	cataagtatc	3420
ttcagctaaa	tgtagaaca	taaaccata	agtcacgtdt	gatgagtatt	aggcgtgaca	3480
catgacaaat	cacagactca	agcaagataa	agcaaaatga	tgtgtacata	aaactccaga	3540
gctatatgtc	atattgcaaa	aagaggagag	cttataagac	aaggcatgac	tcacaaaaat	3600
tcatttdgct	ttcgtgtcaa	aaagaggagg	gcttdtacatt	atccatgtca	tattgcaaaa	3660
gaaagagaga	aagaacaaca	caatgctgcg	tcaattatac	atatctgtat	gtccatcatt	3720
attcatccac	cttdcgtgta	ccacacttdc	tatatcatga	gtcacttdcat	gtctggacat	3780
taacaaactc	tatcttaaca	tttagatgca	agagccttda	tctcactata	aatgcacgat	3840

gattttctcat	tgttttctcac	aaaaagcatt	cagttcatta	gtcctacaac	aacgaattcg	3900
gcttccccggg	tacagggtaa	atctctagtt	tttctccttc	atcttcttgg	ttaggaccct	3960
tttctctttt	tatttttttg	agctttgatc	tttctttaaa	ctgatctatt	ttttaattga	4020
ttggttatcg	tgtaaataatt	acatagcttt	aactgataat	ctgattactt	tatttcgtgt	4080
gtctttgatc	atcttgatag	ttacagaacc	gtcgactcta	gagaagccat	ttaaatcgcc	4140
gccaccatgg	cttctatgat	atcctcttcc	gctgtgacaa	cagtcagccg	tgctctagg	4200
gggcaatccg	ccgcagtggc	tccattcggc	ggcctcaaat	ccatgactgg	attcccagtg	4260
aagaagggtca	acactgacat	tacttccatt	acaagcaatg	gtggaagagt	aaagtgcatt	4320
gcagttggct	cgaaaagttt	tgcgacagcc	tcaaagttat	ttgatgcaaa	aacccggcgc	4380
agcgtactga	tgctctacgc	ctggtgccgc	cattgtgacg	atgttattga	cgatcagacg	4440
ctgggctttc	aggcccggca	gcctgcctta	caaacgcccg	aacaacgtct	gatgcaactt	4500
gagatgaaaa	cgcgccaggc	ctatgcagga	tcgcagatgc	acgaaccggc	gtttgcggct	4560
tttcaggaag	tggttatggc	tcatgatatc	gccccggctt	acgcgtttga	tcattctggaa	4620
ggcttcgcga	tggtatgtacg	cgaagcgcaa	tacagccaac	tggtatgatac	gctgcgctat	4680
tgctatcacg	ttgcaggcgt	tgctggcctg	atgatggcgc	aaatcatggg	cgtgcgggat	4740
aacgccacgc	tggaaccgcgc	ctgtgacctt	gggctggcat	ttcagttgac	caatattgct	4800
cgcatatttg	tggaacgatgc	gcatgcgggc	cgctgttatc	tgccggcaag	ctggctggag	4860
catgaagggtc	tgaacaaaga	gaattatgcg	gcacctgaaa	accgtcaggc	gctgagccgt	4920
atcgcccagc	gtttggtgca	ggaagcagaa	ccttactatt	tgtctgccac	agccggcctg	4980
gcaggggttg	ccctgcgttc	cgctggggca	atcgctacgg	cgaagcaggt	ttaccggaaa	5040
ataggtgtca	aagttgaaca	ggccgggtcag	caagcctggg	atcagcggca	gtcaacgacc	5100
acgcccga	aaataacgct	gctgctggcc	gcctctgggtc	aggcccttac	ttcccggatg	5160
cggtctcatc	ctccccgcc	tgcgcatctc	tggcagcgcc	cgctctaggg	atccgttaag	5220
ggcgaattcc	agcacactgg	cgcccggttac	tagtggatcc	gagctcggtg	cctcgacggc	5280
catgcaggcc	gatccccgat	cgttcaaaca	tttggcaata	aagtttctta	agattgaatc	5340
ctgttgccgg	tcttgcatg	attatcatat	aatttctggt	gaattacggt	aagcatgtaa	5400
taattaacat	gtaatgcatg	acgttattta	tgagatgggt	ttttatgatt	agagtcccgc	5460
aattatacat	ttaatacgcg	atagaaaaca	aaatatagcg	cgcaaactag	gataaattat	5520
cgcgcgcggt	gtcatctatg	ttactagatc	g			5551

<211> 1233
 <212> DNA
 <213> Zea mays

<400> 10
 atggccatca tactcgtacg agcagcgtcg ccggggctct ccgccgccga cagcatcagc 60
 caccagggga ctctccagtg ctccaccctg ctcaagacga agaggccggc ggcgcggcgg 120
 tggatgccct gctcgtctct tggcctccac ccgtgggagg ctggccgtcc ctcccccgcc 180
 gtctactcca gcctgcccgt caaccggcg ggagaggccg tcgtctcgtc cgagcagaag 240
 gtctacgacg tcgtgctcaa gcaggccgca ttgctcaaac gccagctgcg cacgccggtc 300
 ctcgacgcca ggccccagga catggacatg ccacgcaacg ggctcaagga agcctacgac 360
 cgctgcggcg agatctgtga ggagtatgcc aagacgtttt acctcggaac tatgttgatg 420
 acagaggagc ggcgcgcgc catatgggcc atctatgtgt ggtgtaggag gacagatgag 480
 cttgtagatg ggccaaacgc caactacatt acaccaacag ctttggaccg gtgggagaag 540
 agacttgagg atctgttcac gggacgtcct tacgacatgc ttgatgccgc tctctctgat 600
 accatctcaa ggttccccat agacattcag ccattcaggg acatgattga agggatgagg 660
 agtgatctta ggaagacaag gtataacaac ttcgacgagc tctacatgta ctgctactat 720
 gttgctggaa ctgtcgggtt aatgagcgta cctgtgatgg gcatcgcaac cgagtctaaa 780
 gcaacaactg aaagcgtata cagtgtgcc ttggctctgg gaattgcgaa ccaactcacg 840
 aacatactcc gggatgttgg agaggatgct agaagaggaa ggatatattt accacaagat 900
 gagcttgac aggcagggt ctctgatgag gacatcttca aaggggtcgt cacgaaccgg 960
 tggagaaact tcatgaagag gcagatcaag agggccagga tgttttttga ggaggcagag 1020
 agaggggtaa ctgagctctc acaggctagc agatggccag tatgggcttc cctgttggtg 1080
 tacaggcaga tcctggatga gatcgaagcc aacgactaca acaacttcac gaagagggcg 1140
 tatgttggtg aagggaagaa gttgctagca cttcctgtgg catatggaaa atcgctactg 1200
 ctcccatgtt cattgagaaa tggccagacc tag 1233

<210> 11
 <211> 1233
 <212> DNA
 <213> Zea mays

<400> 11
 atggccatca tactcgtacg agcagcgtcg ccggggctct ccgccgccga cagcatcagc 60
 caccagggga ctctccagtg ctccaccctg ctcaagacga agaggccggc ggcgcggcgg 120
 tggatgccct gctcgtctct tggcctccac ccgtgggagg ctggccgtcc ctcccccgcc 180

gtctactcca	gcctgcccgt	caacccggcg	ggagaggccg	tcgtctcgtc	cgagcagaag	240
gtctacgacg	tcgtgctcaa	gcaggccgca	ttgctcaaac	gccagctgcg	cacgccggtc	300
ctcgacgcca	ggccccagga	catggacatg	ccacgcaacg	ggctcaagga	agcctacgac	360
cgctgcggcg	agatctgtga	ggagtatgcc	aagacgtttt	acctcggaac	tatgttgatg	420
acagaggagc	ggcgccgcgc	catatgggcc	atctatgtgt	ggtgtaggag	gacagatgag	480
cttgtagatg	ggccaaacgc	caactacatt	acaccaacag	ctttggaccg	gtgggagaag	540
agacttgagg	atctgttcac	gggacgtcct	tacgacatgc	ttgatgccgc	tctctctgat	600
accatctcaa	ggttccccat	agacattcag	ccattcaggg	acatgattga	agggatgagg	660
agtgatctta	ggaagacaag	gtataacaac	ttcgacgagc	tctacatgta	ctgctactat	720
gttgctggaa	ctgtcggggt	aatgagcgta	cctgtgatgg	gcatcgcaac	cgagtctaaa	780
gcaacaactg	aaagcgtata	cagtgcctgc	ttggctctgg	gaattgcgaa	ccaactcacg	840
aacatactcc	gggatgttgg	agaggatgct	agaagaggaa	ggatatattt	accacaagat	900
gagcttgcac	aggcagggct	ctctgatgag	gacatcttca	aaggggtcgt	cacgaaccgg	960
tggagaaact	tcatgaagag	gcagatcaag	agggccagga	tgttttttga	ggaggcagag	1020
agaggggtaa	atgagctctc	acaggctagc	agatggccag	tatgggcttc	cctgttggtg	1080
tacaggcaga	tcctggatga	gatcgaagcc	aacgactaca	acaacttcac	gaagagggcg	1140
tatgttggtg	aagggaagaa	gttgctagca	cttcctgtgg	catatggaaa	atcgctactg	1200
ctcccatggt	cattgagaaa	tggccagacc	tag			1233

<210> 12

<211> 1233

<212> DNA

<213> Zea mays

<400> 12

atggccatca	tactcgtagc	agcagcgtcg	ccggggctct	ccgccgccga	cagcatcagc	60
caccagggga	ctctccagtg	ctccaccctg	ctcaagacga	agaggccggc	ggcgcgccgg	120
tggatgccct	gctcgctcct	tggcctccac	ccgtgggagg	ctggccgtcc	ctccccgcc	180
gtctactcca	gcctcgccgt	caacccggcg	ggagaggccg	tcgtctcgtc	cgagcagaag	240
gtctacgacg	tcgtgctcaa	gcaggccgca	ttgctcaaac	gccagctgcg	cacgccggtc	300
ctcgacgcca	ggccccagga	catggacatg	ccacgcaacg	ggctcaagga	agcctacgac	360
cgctgcggcg	agatctgtga	ggagtatgcc	aagacgtttt	acctcggaac	tatgttgatg	420
acagaggagc	ggcgccgcgc	catatgggcc	atctatgtgt	ggtgtaggag	gacagatgag	480
cttgtagatg	ggccaaacgc	caactacatt	acaccaacag	ctttggaccg	gtgggagaag	540

agacttgagg atctgttcac gggacgtcct tacgacatgc ttgatgccgc tctctctgat	600
accatctcaa ggttcccat agacattcag ccattcaggg acatgattga agggatgagg	660
agtgatctta ggaagacaag gtataacaac ttcgacgagc tctacatgta ctgctactat	720
gttgctggaa ctgtcgggtt aatgagcgtg ccagtgatgg gcatcgcacg cgagtctaaa	780
gcaacaactg aaagcgtgta cagtgtgtcc ttggctctcg gaattgcgaa ccaactcacg	840
aacatactcc gggatgttgg agaggatgct agacgaggaa ggatatattt accacaagat	900
gagcttgac aggcagggt ctctgatgag gacatcttca aaggggtcgt cacgaaccgg	960
tggagaaact tcatgaagag gcagatcaag agggccagga tgttttttga ggaggcagag	1020
agaggggtaa ctgagctctc acaggctagc agatggccag tatgggcttc cctgttgttg	1080
tacaggcaga tcctggatga gatcgaagcc aacgactaca acaacttcac gaagagggcg	1140
tatgttggtg aaggaagaa gttgctagca cttcctgtgg catatggaaa atcgctactg	1200
ctcccatgtt cattgagaaa tggccagacc tag	1233

<210> 13
 <211> 1263
 <212> DNA
 <213> *Oryza* sp.

<400> 13	
atggcgccca tcacgctcct acgttcagcg tctcttccgg gcctctccga cgccctcgcc	60
cgggacgctg ctgccgtcca acatgtctgc tcctcctacc tgcccaacaa caaggagaag	120
aagaggaggt ggatcctctg ctcgctcaag tacgcctgcc ttggcgtcga ccctgccccg	180
ggcgagattg cccggacctc gccggtgtac tccagcctca ccgtcacccc tgctggagag	240
gccgtcatct cctcgagca gaaggtgtac gacgtcgtcc tcaagcaggc agcattgctc	300
aaacgccacc tgcgcccaca accacacacc attcccatcg ttcccaagga cctggacctg	360
ccaagaaacg gcctcaagca ggcctatcat cgctgcggag agatctgcga ggagtatgcc	420
aagacctttt accttggaac tatgtctatg acggaggacc gacggcgcgc catatgggcc	480
atctatgtgt ggtgtaggag gacagatgag cttgtagatg gaccaaattgc ctgcacatc	540
acaccgtcag ccctggaccg gtgggagaag aggcttgatg atctcttcac cggacgcccc	600
tacgacatgc ttgatgctgc actttctgat accatctcca agtttcctat agatattcag	660
cctttcaggg acatgataga agggatgcgg tcagacctca gaaagactag atacaagaac	720
ttcgacgagc tctacatgta ctgctactat gttgctggaa ctgtgggggt aatgagtgtt	780
cctgtgatgg gtattgcacc cgagtcgaag gcaacaactg aaagtgtgta cagtgtgtgt	840

ttggctctcg gcattgcaaa ccagctcaca aatatactcc gtgacgttgg agaggacgcg 900
 agaagaggga ggatatattt accacaagat gaacttgtag aggcagggtc ctctgatgag 960
 gacatcttca atggcggttg gactaacaaa tggagaagct tcatgaagag acagatcaag 1020
 agagctagga tgttttttga ggaggcagag agaggggtga ccgagctcag ccaggcaagc 1080
 cgggtggccgg tctgggcgtc tctgttggtta taccggcaaa tccttgacga gatagaagca 1140
 aacgattaca acaacttcac aaagagggcg tacgttggga aggcgaagaa attgctagcg 1200
 cttccagttg catatggtag atcattgctg atgccctact cactgagaaa tagccagaag 1260
 tag 1263

<210> 14
 <211> 420
 <212> PRT
 <213> Oryza sp.

<400> 14

Met Ala Ala Ile Thr Leu Leu Arg Ser Ala Ser Leu Pro Gly Leu Ser
 1 5 10 15

Asp Ala Leu Ala Arg Asp Ala Ala Ala Val Gln His Val Cys Ser Ser
 20 25 30

Tyr Leu Pro Asn Asn Lys Glu Lys Lys Arg Arg Trp Ile Leu Cys Ser
 35 40 45

Leu Lys Tyr Ala Cys Leu Gly Val Asp Pro Ala Pro Gly Glu Ile Ala
 50 55 60

Arg Thr Ser Pro Val Tyr Ser Ser Leu Thr Val Thr Pro Ala Gly Glu
 65 70 75 80

Ala Val Ile Ser Ser Glu Gln Lys Val Tyr Asp Val Val Leu Lys Gln
 85 90 95

Ala Ala Leu Leu Lys Arg His Leu Arg Pro Gln Pro His Thr Ile Pro
 100 105 110

Ile Val Pro Lys Asp Leu Asp Leu Pro Arg Asn Gly Leu Lys Gln Ala
 115 120 125

Tyr His Arg Cys Gly Glu Ile Cys Glu Glu Tyr Ala Lys Thr Phe Tyr
 130 135 140

Leu Gly Thr Met Leu Met Thr Glu Asp Arg Arg Arg Ala Ile Trp Ala
 145 150 155 160

Ile Tyr Val Trp Cys Arg Arg Thr Asp Glu Leu Val Asp Gly Pro Asn
 165 170 175

Ala Ser His Ile Thr Pro Ser Ala Leu Asp Arg Trp Glu Lys Arg Leu
 180 185 190

Asp Asp Leu Phe Thr Gly Arg Pro Tyr Asp Met Leu Asp Ala Ala Leu
 195 200 205

Ser Asp Thr Ile Ser Lys Phe Pro Ile Asp Ile Gln Pro Phe Arg Asp
 210 215 220

Met Ile Glu Gly Met Arg Ser Asp Leu Arg Lys Thr Arg Tyr Lys Asn
 225 230 235 240

Phe Asp Glu Leu Tyr Met Tyr Cys Tyr Tyr Val Ala Gly Thr Val Gly
 245 250 255

Leu Met Ser Val Pro Val Met Gly Ile Ala Pro Glu Ser Lys Ala Thr
 260 265 270

Thr Glu Ser Val Tyr Ser Ala Ala Leu Ala Leu Gly Ile Ala Asn Gln
 275 280 285

Leu Thr Asn Ile Leu Arg Asp Val Gly Glu Asp Ala Arg Arg Gly Arg
 290 295 300

Ile Tyr Leu Pro Gln Asp Glu Leu Ala Glu Ala Gly Leu Ser Asp Glu
 305 310 315 320

Asp Ile Phe Asn Gly Val Val Thr Asn Lys Trp Arg Ser Phe Met Lys
 325 330 335

Arg Gln Ile Lys Arg Ala Arg Met Phe Phe Glu Glu Ala Glu Arg Gly
 340 345 350

Val Thr Glu Leu Ser Gln Ala Ser Arg Trp Pro Val Trp Ala Ser Leu
 355 360 365

Leu Leu Tyr Arg Gln Ile Leu Asp Glu Ile Glu Ala Asn Asp Tyr Asn
 370 375 380

Asn Phe Thr Lys Arg Ala Tyr Val Gly Lys Ala Lys Lys Leu Leu Ala
 385 390 395 400

Leu Pro Val Ala Tyr Gly Arg Ser Leu Leu Met Pro Tyr Ser Leu Arg
 405 410 415

Asn Ser Gln Lys
 420

<210> 15
 <211> 1260
 <212> DNA
 <213> Capsicum annuum

<400> 15
 atgtctgttg ccttggtatg gggtgtttct ccttggtgacg tctcaaacgg gacaggattc 60
 ttggtatccg ttcgtgaggg aaaccggatt tttgattcgt cggggcgtag gaatttggcg 120
 tgcaatgaga gaatcaagag aggaggtgga aaacaaaggt ggagttttgg ttcttacttg 180
 ggaggagcac aaactggaag tggacggaaa ttttctgtac gttctgctat cgtggctact 240
 ccggctggag aaatgacgat gtcacacaga cggatgggat atgatgtggt tttgaggcag 300
 gcagccttgg tgaagagaca gctgagatcg accgatgagt tagatgtgaa gaaggatata 360
 cctattccgg ggactttggg cttgttgagt gaagcatatg ataggtgtag tgaagtatgt 420
 gcagagtacg caaagacgtt ttacttagga acgatgctaa tgactccgga gagaagaaag 480
 gctatctggg caatatacgt atggtgcagg agaacagacg aacttggtga tgggccgaat 540
 gcatcacaca ttactccggc ggccttagat aggtgggaag acaggctaga agatgttttc 600
 agtggacggc catttgacat gctcgatgct gctttgtccg acacagtttc caaatttcca 660
 gttgatattc agccattcag agatatgatt gaaggaatgc gtatggactt gaggaagtca 720
 agatacagaa actttgacga actataccta tattgttatt acgttgctgg tacggttggg 780
 ttgatgagtg ttccaattat gggcatcgca cctgaatcaa aggcaacaac ggagagcgta 840
 tataatgctg ctttggcttt ggggatcgca aatcagctga ccaacatact tagagatgtt 900
 ggagaagatg ccagaagagg aagagtctat ttgcctcaag atgaattagc acaggcaggt 960
 ctatccgacg aagacatatt tgctggaaga gtgaccgata aatggagaat cttcatgaag 1020
 aaacaaattc agagggcaag aaagtctctt gacgaggcag agaaaggagt gaccgaattg 1080
 agcgcagcta gtagatggcc tgtgttggca tctctgctgt tgtaccgacg gatactggac 1140
 gagatcgaag ccaatgacta caacaacttc acaagagag cttatgtgag caaaccaaag 1200
 aagttgattg cattacctat tgcataatgca aaatctcttg tgccttctac aagaacatga 1260

<210> 16
 <211> 1239
 <212> DNA
 <213> *Lycopersicon esculentum*

<400> 16
 atgtctgttg ccttggtatg ggttggttct ccttggtgacg tctcaaatgg gacaagtttc 60
 atggaatcag tccgggaggg aaaccgtttt tttgattcat cgaggcatag gaatttggtg 120
 tccaatgaga gaatcaatag aggtggtgga aagcaaaacta ataatggacg gaaattttct 180
 gtacggtctg ctattttggc tactccatct ggagAACGga cgatgacatc ggaacagatg 240
 gtctatgatg tggttttgag gcaggcagcc ttggtgaaga ggcaactgag atctaccaat 300
 gagttagaag tgaagccgga tatacctatt ccgggggaatt tgggcttggt gagtgaagca 360
 tatgataggt gtggtgaagt atgtgcagag tatgcaaaga cgtttaactt aggaactatg 420
 ctaatgactc ccgagagaag aagggctatc tgggcaatat atgtatggtg cagaagaaca 480
 gatgaacttg ttgatggccc aaacgcacatca tatattaccc cggcagcctt agataggtgg 540
 gaaaataggc tagaagatgt tttcaatggg cggccatttg acatgctcga tgggtgcttg 600
 tccgatacag tttctaactt tccagttgat attcagccat tcagagatat gattgaagga 660
 atgcgtatgg acttgagaaa atcgagatac aaaaacttcg acgaactata cctttattgt 720
 tattatgttg ctggtacggt tgggttgatg agtgttccaa ttatgggtat cgcccctgaa 780
 tcaaaggcaa caacagagag cgtatataat gctgcttttg ctctggggat cgcaaatcaa 840
 ttaactaaca tactcagaga tggttgagaa gatgccagaa gaggaagagt ctacttgcct 900
 caagatgaat tagcacaggc aggtctatcc gatgaagata tatttgctgg aagggtgacc 960
 gataaatgga gaatctttat gaagaaacaa atacataggg caagaaagt ctttgatgag 1020
 gcagagaaaag gcgtgacaga attgagctca gctagtagat tccctgtatg ggcattcttg 1080
 gtcttgtagc gcaaaatact agatgagatt gaagccaatg actacaacaa cttcaciaag 1140
 agagcatatg tgagcaaatc aaagaagttg attgcattac ctattgcata tgcaaaatct 1200
 cttgtgcctc ctacaaaaac tgcctctctt caaagataa 1239

<210> 17
 <211> 891
 <212> DNA
 <213> *Erwinia* sp.

<400> 17
 atggcagttg gctcgaaaag ttttgcgaca gcctcaaagt tatttgatgc aaaaaccggg 60
 cgcagcgtac tgatgctcta cgcctggtgc cgccattgtg acgatgttat tgacgatcag 120

acgctgggct	ttcaggcccc	gcagcctgcc	ttacaaacgc	ccgaacaacg	tctgatgcaa	180
cttgagatga	aaacgcgcca	ggcctatgca	ggatcgcaga	tgcacgaacc	ggcgtttgcg	240
gcttttcagg	aagtggctat	ggctcatgat	atcgccccgg	cttacgcgtt	tgatcatctg	300
gaaggcttcg	cgatggatgt	acgcgaagcg	caatacagcc	aactggatga	tacgctgcgc	360
tattgctatc	acgttgacgg	cgttgtcggc	ttgatgatgg	cgcaaatacat	ggcgctgcgg	420
gataacgcca	cgctggaccg	cgcctgtgac	cttgggctgg	catttcagtt	gaccaatatt	480
gctcgcgata	ttgtggacga	tgcgcatgcg	ggccgctggt	atctgccggc	aagctggctg	540
gagcatgaag	gtctgaacaa	agagaattat	gcggcacctg	aaaaccgtca	ggcgctgagc	600
cgtatcggcc	gacgtttggg	gcaggaagca	gaaccttact	atctgtctgc	cacagccggc	660
ctggcagggt	tgcccctgcg	ttccgcctgg	gcaatcgcta	cggcgaagca	ggtttaccgg	720
aaaataggtg	tcaaagttga	acaggccggg	cagcaagcct	gggatcagcg	gcagtcaacg	780
accacgcccg	aaaaattaac	gctgctgctg	gccgcctctg	gtcaggccct	tacttcccgg	840
atgcgggctc	atcctccccg	ccctgcgcat	ctctggcagc	gcccgtctta	g	891

<210> 18
 <211> 1479
 <212> DNA
 <213> *Erwinia* sp.

<400> 18	
atgaaaccaa	ctacggtaat
tggtgcaggc	ttcgggtggcc
tggcactggc	aattcgtcta
60	
caagctgcgg	ggatccccgt
cttactgctt	gaacaacgtg
ataaaccggg	cggtcgggct
120	
tatgtctacg	aggatcaggg
gtttaccttt	gatgcaggcc
cgacggttat	caccgatccc
180	
agtgccattg	aagaactggt
tgactggca	ggaaaacagt
taaaagagta	tgtcgaactg
240	
ctgccggtta	cgccgtttta
ccgcctgtgt	tgggagtcag
ggaaggtctt	taattacgat
300	
aacgatcaaa	cccggctcga
agcgcagatt	cagcagttta
atccccgcga	tgtcgaaggt
360	
tatcgtcagt	ttctggacta
ttcacgcgcg	gtgttttaaag
aaggctatct	gaagctcggg
420	
actgtccctt	ttttatcggt
cagagacatg	cttcgcgccg
cacctcaact	ggcgaaactg
480	
caggcatgga	gaagcgttta
cagtaagggt	gccagttaca
tcgaagatga	acatctgcgc
540	
caggcgtttt	ctttccactc
gctgttggtg	ggcggcaatc
ccttcgccac	ctcatccatt
600	
tatacgttga	tacacgcgct
ggagcgtgag	tggggcgctct
ggtttccgcg	tggcggcacc
660	
ggcgcattag	ttcaggggat
gataaagctg	tttcaggatc
tgggtggcga	agtcgtgtta
720	
aacgccagag	tcagccatat
ggaaacgaca	ggaaacaaga
ttgaagccgt	gcatttagag
780	
gacggtcgca	ggttcctgac
gcaagccgtc	gcgtcaaagt
cagatgtggt	tcataacctat
840	

cgcgacctgt taagccagca ccctgccgcg gttaagcagt ccaacaaact gcagactaag	900
cgcatgagta actctctgtt tgtgctctat tttggtttga atcaccatca tgatcagctc	960
gcgcatacaca cggtttgttt cggcccgcgt taccgcgagc tgattgacga aatttttaat	1020
catgatggcc tcgcagagga cttctcactt tatctgcacg cgccctgtgt cacggattcg	1080
tcactggcgc ctgaagggtg cggcagttac tatgtgttg cgccggtgcc gcatttaggc	1140
accgcgaacc tcgactggac ggttgagggg ccaaaaactac gcgaccgtat ttttgcgtac	1200
cttgagcagc attacatgcc tggcttacgg agtcagctgg tcacgcaccg gatgtttacg	1260
ccgtttgatt ttcgcgacca gcttaatgcc tatcatggct cagccttttc tgtggagccc	1320
gttcttacct agagcgctg gtttcggccg cataaccgcg ataaaaccat tactaatctc	1380
tacctggctg gcgcaggcac gcatcccggc gcaggcattc ctggcgatcat cggctcggca	1440
aaagcgacag caggtttgat gctggaggat ctgatttga	1479

<210> 19
 <211> 1488
 <212> DNA
 <213> *Erwinia* sp.

<400> 19	
atggcgggccg ccaaaccaac tacggtaatt ggtgcaggct tcggtggcct ggactggca	60
attcgtctac aagctgcggg gatccccgtc ttactgcttg aacaacgtga taaaccggc	120
ggtcgggctt atgtctacga ggatcagggg ttacctttg atgcaggccc gacggttatc	180
accgatccca gtgccattga agaactgtt gcactggcag gaaaacagtt aaaagagtat	240
gtcgaactgc tgccggttac gccgttttac cgctgtgtt gggagtcagg gaaggctttt	300
aattacgata acgatcaaac ccggctcgaa gcgcagattc agcagtttaa tccccgcgat	360
gtcgaagggt atcgtcagtt tctggactat tcacgcgcgg tgtttaaaga aggctatctg	420
aagctcggta ctgtcccttt tttatcgttc agagacatgc ttcgcgccgc acctcaactg	480
gcgaaactgc aggcattggag aagcgtttac agtaagggtg ccagttacat cgaagatgaa	540
catctgcgcc aggcgttttc tttccactcg ctgttggtgg gcggcaatcc cttcgccacc	600
tcattccatt atacgttgat acacgcgctg gagcgtgagt ggggcgtctg gtttccgcgt	660
ggcggcaccg gcgcattagt tcaggggatg ataaagctgt ttcaggatct gggtggcgaa	720
gtcgtgttaa acgccagagt cagccatatg gaaacgacag gaaacaagat tgaagccgtg	780
catttagagg acggctcgag gttcctgacg caagccgtcg cgtcaaagtc agatgtgggt	840
catacctatc gcgacctgtt aagccagcac cctgccgcgg ttaagcagtc caacaaactg	900

cagactaagc gcatgagtaa ctctctgttt gtgctctatt ttggtttgaa tcaccatcat	960
gatcagctcg cgcatcacac ggtttgtttc ggcccgcgtt accgcgagct gattgacgaa	1020
atttttaatc atgatggcct cgcagaggac ttctcacttt atctgcacgc gccctgtgtc	1080
acggattcgt cactggcgcc tgaagggtgc ggcagttact atgtgttggc gccggtgccg	1140
catttaggca ccgcgaacct cgactggacg gttgaggggc caaaactacg cgaccgtatt	1200
tttgcgtaacc ttgagcagca ttacatgcct ggcttacgga gtcagctggt cacgcaccgg	1260
atgtttacgc cgtttgattt tcgcgaccag cttaatgcct atcatggctc agccttttct	1320
gtggagcccc ttcttaccga gagcgccctgg tttcggccgc ataaccgcga taaaaccatt	1380
actaatctct acctggctcg cgcaggcacg catcccggcg caggcattcc tggcgtcatc	1440
ggctcggcaa aagcgacagc aggtttgatg ctggaggatc tgatttga	1488

<210> 20
 <211> 839
 <212> DNA
 <213> Oryza sp.

<400> 20	
gttaatcatg gtgtaggcaa cccaaataaa acacccaaat atgcacaagg cagtttggtg	60
tattctgtag tacagacaaa actaaaagta atgaaagaag atgtggtgtt agaaaaggaa	120
acaatatcat gagtaatgtg tgagcattat gggaccacga aataaaaaga acattttgat	180
gagtcgtgta tcctcgatga gcctcaaaag ttctctcacc ccggataaga aacccttaag	240
caatgtgcaa agtttgcatc ctccactgac ataatgcaaa ataagatatc atcgatgaca	300
tagcaactca tgcacatcat catgcctctc tcaacctatt cattcctact catctacata	360
agtatcttca gctaaatggt agaacataaa ccataagtc acgtttgatg agtattaggc	420
gtgacacatg acaaatcaca gactcaagca agataaagca aaatgatgtg tacataaaac	480
tccagagcta tatgtcatat tgcaaaaaga ggagagctta taagacaagg catgactcac	540
aaaaattcat ttgcctttcg tgtcaaaaag aggagggctt tacattatcc atgtcatatt	600
gcaaaagaaa gagagaaaaga acaacacaat gctgcgtcaa ttatacatat ctgtatgtcc	660
atcattatcc atccaccttt cgtgtaccac acttcatata tcatgagtca cttcatgtct	720
ggacattaac aaactctatc ttaacattta gatgcaagag cttttatctc actataaatg	780
cacgatgatt tctcattggt tctcacaaaa agcattcagt tcattagtcc tacaacaac	839

<210> 21
 <211> 642
 <212> DNA
 <213> Oryza sp.

<400> 21
aagcttgcgcg cggaatacgt gtggagatgg gttgggaacc ctggattcca aacacagccc 60
aagtctatcc aaaatgttta gacaagaaaa tacgtaacaa gttggtttac agaaatacga 120
attagatcaa tcctgcacta caagtagagt aaagtgggtga tttctcttaa atctctcgaa 180
tggtgattta agaattcagt gcaaaccaaa tccttgctat aatcaaagt tccgtaccgc 240
atcaacggaa caataaaaag cgcctggcgt accataatct tgcattctt gttgaaatct 300
gtaatttaag atgcatgagg ccacacgacc ttaatgttca acgtgtcatg cattagttaa 360
ataatagctc acaaaacgca acaaatatag ctagataacg gttgcaatcc ttaccaaact 420
aacgtataaa gtgagcgatg agtcatatca ttatctcccg cctgctaacc atcgtgtaca 480
ccatccgatc acaaaaatga caacttctag ggatgaacct ggacaagggt tagggtttag 540
ggatgaatct ggacaaatga ttgttcaggt tcatccctag atgttggttt ctctgacgg 600
gacggaggga gtatatgtga tggacacaaa agttactttc at 642

<210> 22
<211> 190
<212> DNA
<213> Artificial Sequence

<220>
<223> Catalase gene Intron from Castor Bean

<400> 22
gtaaatttct agtttttctc cttcattttc ttggtttagga cccttttctc tttttatttt 60
tttgagcttt gatctttctt taaactgac tatttttttaa ttgattgggt atcgtgtaaa 120
tattacatag ctttaactga taatctgatt actttatttc gtgtgtcttt gatcatcttg 180
atagttacag 190

<210> 23
<211> 171
<212> DNA
<213> Pisum sativum

<400> 23
atggcttcta tgatatcctc ttccgctgtg acaacagtca gccgtgcctc tagggggcaa 60
tccgccgcag tggctccatt cggcggcctc aaatccatga ctggattccc agtgaagaag 120
gtcaacactg acattacttc cattacaagc aatggtggaa gagtaaagtg c 171

<210> 24
<211> 254
<212> DNA
<213> Agrobacterium tumefaciens

<400> 24
gatcgttcaa acatttggca ataaagtttc ttaagattga atcctgttgc cggctcttgcg 60
atgattatca tataatttct gttgaattac gttaagcatg taataattaa catgtaatgc 120
atgacgttat ttatgagatg gggttttatg attagagtcc cgcaattata catttaatac 180
gcgatagaaa acaaaatata gcgcgcaaac taggataaat tatcgcgcgc ggtgtcatct 240
atgttactag atcg 254

<210> 25
<211> 193
<212> DNA
<213> Cauliflower mosaic virus

<400> 25
gctgaaatca ccagtctctc tctacaaatc tatctctctc tataataatg tgtgagtagt 60
tcccagataa gggaattagg gttcttatag gggttcgctc atgtgttgag catataagaa 120
acccttagta tgtatttgta tttgtaaaat acttctatca ataaaatttc taattcctaa 180
aaccaaaatc cag 193

<210> 26
<211> 238
<212> DNA
<213> Solanum tuberosum

<400> 26
ccctagactt gtccatcttc tggattggcc aacttaatta atgtatgaaa taaaaggatg 60
cacacatagt gacatgctaa tcactataat gtgggcatca aagttgtgtg ttatgtgtaa 120
ttactaatta tctgaataag agaaagagat catccatatt tcttatccta aatgaatgtc 180
acgtgtcttt ataattcttt gatgaaccag atgcatttta ttaaccaatt ccatatac 238

<210> 27
<211> 2321
<212> DNA
<213> Lycopersicon esculentum

<400> 27
gggtttatct cgcaagtgtg gctatgggtg gacgtgtcaa attttggatt gtagccaaac 60
atgagatttg atttaaaggg aattggccaa atcaccgaaa gcaggcatct tcatcataaa 120
ttagtttggt tatttataca gaattatacg cttttactag ttatagcatt cggtatcttt 180
ttctgggtaa ctgccaaacc accacaaatt tcaagtttcc atttaactct tcaacttcaa 240
cccaacaaa tttatttgct taattgtgca gaaccactcc ctatatcttc taggtgcttt 300
cattcgttcc gagtaaaatg cctcaaattg gacttgtttc tgctgttaac ttgagagtcc 360

aaggtagttc agcttatctt tggagctcga ggtcgtcttc tttgggaact gaaagtcgag	420
atggttgctt gcaaaggaat tctgttatgtt ttgctggtag cgaatcaatg ggtcataagt	480
taaagattcg tactcccat gccacgacca gaagattggt taaggacttg gggcctttaa	540
aggtcgtatg cattgattat ccaagaccag agctggacaa tacagttaac tatttggagg	600
ctgcattttt atcatcaacg ttccgtgctt ctccgcgccc aactaaacca ttggagattg	660
ttattgctgg tgcaggtttg ggtggtttgt ctacagcaaa atatttggca gatgctggtc	720
acaaaccgat actgctggag gcaagggatg ttctaggtgg aaaggtagct gcatggaaag	780
atgatgatgg agattggtac gagactggtt tgcataatatt ctttggggct taccctaaata	840
ttcagaacct gtttggagaa ttagggatta acgatcgatt gcaatggaag gaacattcaa	900
tgatatttgc aatgccaagc aagccaggag aattcagccg ctttgatttc tccgaagctt	960
taccgctcc tttaaatgga atttttagcca tcttaaagaa taacgaaatg cttacatggc	1020
cagagaaagt caaatttgca attggactct tgccagcaat gcttggaggg caatcttatg	1080
ttgaagctca agatgggata agtggttaagg actggatgag aaagcaaggt gtgccggaca	1140
gggtgacaga tgaggtgttc attgctatgt caaaggcact caactttata aaccctgacg	1200
aactttcaat gcagtgcatt ttgatcgcat tgaacagggt tcttcaggag aaacatgggt	1260
caaaaatggc ctttttagat ggtaatcctc ctgagagact ttgcatgccg attgttgaac	1320
acattgagtc aaaagggtggc caagtcagac tgaactcacg aataaaaaag attgagctga	1380
atgaggatgg aagtgtcaag agttttatac tgagtgcagg tagtgcaatc gagggagatg	1440
cttttgtgtt tgccgctcca gtggatattt tcaagcttct attgcctgaa gactggaaag	1500
agattccata tttccaaaag ttggagaagt tagtcggagt acctgtgata aatgtacata	1560
tatggtttga cagaaaactg aagaacacat atgatcattt gctcttcagc agaagctcac	1620
tgctcagtgt gtatgctgac atgtctgtta catgtaagga atattacaac cccaatcagt	1680
ctatgttggg attggttttt gcacctgcag aagagtggat atctcgcagc gactcagaaa	1740
ttattgatgc aacgatgaag gaactagcaa cgctttttcc tgatgaaatt tcagcagatc	1800
aaagcaaagc aaaaatattg aagtaccatg ttgtcaaaac tccgaggtct gtttataaaa	1860
ctgtgccagg ttgtgaacct tgtcggcctt taaaaagatc cccaatagag gggttttatt	1920
tagccggtga ctacacgaaa cagaaatact tggcttcaat ggaaggcgct gtcttatcag	1980
gaaagctttg tgctcaagct attgtacagg attatgagtt acttgttgga cgtagccaaa	2040
agaagttgtc ggaagcaagc gtagtttagc tttgtgggta ttatttagct tctgtacact	2100
aaatttatga tgcaagaagc gttgtacaca acatatagaa gaagagtgcg aggtgaagca	2160

agtaggagaa atgtaggaa agctcctata caaaaggatg gcatgttgaa gattagcatc	2220
ttttaaatcc caagttaaata tataaagcat attttatgta ccactttctt tatctgggggt	2280
ttgtaatccc tttatatctt tatgcaatct ttacgttagt t	2321

<210> 28
 <211> 1749
 <212> DNA
 <213> Capsicum annuum

<400> 28	
atgccccaaa ttggacttgt ttctgctgtc aacttgagag tccaaggtaa ttcagcttat	60
ctttggagct cgaggctctt tttgggaact gatagtcaag atggttgctc gcaaaggaat	120
tcgttatgtt ttggtggtag tgactcaatg agtcataggt taaagattcg taatccccat	180
tccataacga gaagattggc taaggatttc cggcctttaa aggttgtttg cattgattat	240
ccaaggccag agctagacaa tacagttaac tatttgaggg ctgcattctt atcatcatca	300
ttccgatctt ctccgcgccc aaccaaacca ctggagattg ttattgctgg tgcaggtttg	360
ggtggtttgt ctacagcaaa atatttgga gatgctggct acaaaccaat actgctggag	420
gcaagggatg ttctaggtgg aaaggtagct gcatggaaag atgatgatgg agattggtat	480
gagactggtt tgcacatatt ctttggggct taccxaaata tgcagaacct atttgagaa	540
ttagggataa atgatcgatt gcaatggaag gaacattcga tgatatttgc aatgccaaac	600
aagccaggag aattcagccg ctttgatttc cccgaagctt tacctgctcc tttaaatgga	660
attttgga tccaaagaa caatgaaatg cttacatggc cagaaaaagt caaatttgca	720
attggactct tgccagcaat gcttggtggg caatcttatg ttgaagctca agacgggata	780
agtgttaagg actggatgag aaaacaagggt gtgccggata gggtgacgga tgagggtgtc	840
atcgccatgt caaaggcact taacttcata aatcctgatg agctttcgat gcagtgcac	900
ttgatcgctg tgaacagatt tcttcaggag aaacatggtt caaaaatggc ctttttagat	960
ggtaatcctc ctgagagact ttgcatgccg attggtgaac atatcgagtc aaaagggtgga	1020
caagtcagac tgaactcacg aataaaaaag attgagctga atgaggatgg aagtgtcaag	1080
tgttttatac tgaacgatgg tagtacaatt gagggagatg cttttgtgtt tgcgactcca	1140
gtggatattt tcaagcttct tttgcctgaa gactggaaag agattccata tttccaaaag	1200
ttggagaagt tagttggagt acctgtgata aatgtccata tatggtttga cagaaaactg	1260
aagaacacat ctgataattt gctcttcagc agaagccac tgctcagtgt gtatgctgac	1320
atgtccgtca catgtaagga atattacgac cccaacaagt ccatgttgga attggtcttt	1380

gcgcctgcag aagagtgggt atctcgcagt gactctgaaa ttattgatgc tacaatgaag	1440
gaactagcaa agctatttcc tgatgaaatt tcggcggatc agagcaaagc aaaaatattg	1500
aagtatcatg ttgtcaaaac tccaaggtct gtatataaaa ctgtgccagg ttgtgaaccc	1560
tgtcggctct tgcaaagatc ccctgtagag gggttttatt tagctggtga ctacacgaaa	1620
cagaaatact tggcttcaat ggaaggtgct gtcttatcag gaaagctttg tgcacaagct	1680
attgtacagg attacgagtt acttgttggc cggagccaga ggaagttggc agaaacaagt	1740
gtagttag	1749

<210> 29
 <211> 2264
 <212> DNA
 <213> Zea mays

<400> 29	
ctccaaatgc ggaggtctcg actcttctct cttcctccat ctttatcatc gccccacgta	60
cacaccaat tctcgcgaac tgggctcccc cgcctccacg aactgcccc cgtctcaag	120
tccgccgect ccattcttca gctctcctat cctccgccta gaatatcttc atcggtat	180
taccaacctg gatcaattta ctcacgatac tctgaagcgt atacatatgc catatgggaa	240
atgacttcat agctgtgggt tgtcttatgg ctcttgaat ttgcagtagt ctgcctgtac	300
ctattggctg aagcagagct gacccccact ttatcaagag ttgctcaacg atggacactg	360
gctgcctgtc atctatgaat attactggag ctagccagac aagatctttt gcggggcaac	420
ttcctcctca gagatgtttt gcgagtagtc actatacaag ctttgccgtg aaaaaacttg	480
tctcaaggaa taaaggaagg agatcacacc gtagacatcc tgccttgca gttgtctgca	540
aggattttcc aagacctcca ctagaaagca caataaacta tttggaagct ggacagctct	600
cttcattttt tagaaacagc gaacgcccc gtaagccgtt gcaggtcgtg gttgctggtg	660
caggattggc tggcttatca acagcgaagt atctggcaga tgctggccat aaacccatat	720
tgcttgaggc aagagatggt ttgggtggaa aggtagctgc ttggaaggat gaagatggag	780
attggtacga gactgggctt catatatattt ttggagctta tccaacata cagaatctgt	840
ttggcgagct taggattgag gatcgtttgc agtggaaga aactctatg atattcgcca	900
tgccaaacaa gccaggagaa ttcagccggt tcgatttccc agaaactttg ccagcaccta	960
taaatgggat atgggccata ttgagaaaca atgaaatgct tacttggccg gagaaggatga	1020
agtttgcaat cggacttctg ccagcaatgg ttggtggtca accttatggt gaagctcaag	1080
atggcttaac cgtttcagaa tggatgaaaa agcaggggtgt tcctgatcgg gtgaacgatg	1140
aggtttttat tgcaatgtcc aaggcactca atttcataaa tcctgatgag ctatctatgc	1200

agtgcattttt gattgctttg aaccgatttc ttcaggagaa gcatggttct aaaatggcat	1260
tcttgatgg taatccgcct gaaaggctat gcatgcctat tgttgatcac attcgggtcta	1320
ggggtggaga ggtccgcctg aattctcgtt ttaaaaagat agagctgaat cctgatggaa	1380
ctgtaaaaca cttcgcactt agtgatggaa ctcaaataac tggagatgct tatgtttgtg	1440
caacaccagt cgatatcttc aagcttcttg tacctcaaga gtggagtga attacttatt	1500
tcaagaaact ggagaagttg gtgggagttc ctgttatcaa tgttcatata tggtttgaca	1560
gaaaactgaa caacacatat gaccaccttc ttttcagcag gagttcactt ttaagtgtct	1620
atgcagacat gtcagtaacc tgcaaggaat actatgacct aaaccgttca atgctggagt	1680
tggctctttgc tcctgcagac gaatggattg gtcgaagtga cactgaaatc atcgatgcaa	1740
ctatggaaga gctagccaag ttatttcctg atgaaattgc tgctgatcag agtaaagcaa	1800
agattcttaa gtatcatatt gtgaagacac cgagatcggg ttacaaaact gtcccaaact	1860
gtgagccttg ccggcctctc caaagggtcac ctatcgaagg tttctatcta gctggtgatt	1920
acacaaagca gaaatacctg gcttctatgg aagggtgcagt cctatccggg aagctttgtg	1980
cccagtccat agtgcaggat tatagcaggc tcgcactcag gagccagaaa agcctacaat	2040
caggagaagt tcccgtccca tcttagttgt agttggcttt agctatcgtc atccccactg	2100
ggtgctatct tatctcctat ttcaatggga acccacccaa tggatcatgtt ggagacaaca	2160
cctgttatgg tcctttgacc atctcgtggg gactgtagtt gatgtcatat tcggatatat	2220
atgtaaaagg acctgcatag caattgttag accttggaaa aaaa	2264

<210> 30
 <211> 2027
 <212> DNA
 <213> Oryza sp.

<400> 30	
gtttatgaca gcatctgccg gatattttgc aggacaactt cctactcata ggtgcttcgc	60
aagtagcagc atccaagcac tgaaaggtag tcagcatgtg agctttggag tgaaatctct	120
tgtcttaagg aataaaggaa aaagattccg tcggagggtc ggtgctctac aggttgtttg	180
ccaggacttt ccaagacctc cactagaaaa cacaataaac tttttggaag ctggacaact	240
atcctcattt ttcagaaaca gtgaacaacc cactaaacca ttacagggtcg tgattgctgg	300
agcaggatta gctggtttat caacggcaaa atatctggca gatgctgggc ataaacccat	360
attgcttgag gcaagggtg ttttgggtgg aaagatagct gcttgggaagg atgaagatgg	420
agattggtat gaaactgggc ttcatatctt ttttggagct tatccaaca tacagaactt	480

gtttggcgag cttggtatta atgatcggtt gcaatggaag gaacactcca tgatatttgc	540
catgccaaac aagccaggag aatccagccg gtttgatttt cctgaaacat tgctgcacc	600
cttaaatgga atatgggcca tactaagaaa caatgaaatg ctaacttggc cagagaaggt	660
gaagtttgct cttggacttt tgccagcaat ggttgggtggc caagcttatg ttgaagctca	720
agatgggtttt actgttttctg agtggatgaa aaagcagggg gttcctgatc gagtgaacga	780
tgaagttttc attgcaatgt caaaggcact taatttcata aatcctgatg agttatccat	840
gcagtgcatt ctgattgctt taaaccgatt tcttcaggag aagcatgggt ctaagatggc	900
attcttggat ggtaatcctc ctgaaagggt atgcatgcct attgttgacc atgttcgctc	960
tttgggtggg gaggttcggc tgaatttctg tattcagaaa atagaactta atcctgatgg	1020
aacagtgaaa cactttgcac ttaccgatgg aactcaaata actggagatg cttatgtttt	1080
tgcaacacca gttgatattc tgaagcttct tgtacctcaa gagtggaaag aaatatctta	1140
tttcaagaag ctggagaagt tgggtgggagt tcctgttata aatgttcata tatggtttga	1200
tagaaaactg aagaacacat atgaccacct tcttttcagc aggagttcac ttttaagtgt	1260
ttatgctggac atgtcagtaa cttgcaagga atactatgat ccaagccgtt caatgctgga	1320
gttggtcttt gctcctgcag aggaatgggt tggacggagt gacactgaaa tcatcgaagc	1380
aactatgcaa gagctagcca agctatttcc tgatgaaatt gctgctgatc agagttaaagc	1440
aaagattctg aagtatcatg ttgtgaagac accaagatct gtttacaaga ctatcccgga	1500
ctgtgaacct tgccgacctc tgcaaagatc accgattgaa gggttctatc tagctggtga	1560
ctacacaaag cagaaatatt tggcttcgat ggaggggtgca gttctatctg ggaagctttg	1620
tgctcagtct gtagtggagg attataaaat gctatctcgt aggagcctga aaagtctgca	1680
gtccgaagtt cctgttgctt cctagtgtga gtcaggacta ttcccaatgg tgtgtgtgtc	1740
atcatcccct agtcagtttt tttctattta gtgggtgccc aactctccac caatttacac	1800
atgatggaac ttgaaagatg cctatttttg tcttatcata tttctgtaaa gttgatttgt	1860
gactgagagc tgatgccgat atgccacgct ggagaaaaag aacattatgt aaaacgacct	1920
gcatagtaat tcttagactt ttgcaaaagg caaaaggggt aaagcgacct tttttttcta	1980
tgtgaaggga ttaagagacc ttaaaaaaaaa aaaaaaaaaa aaaaaaa	2027

<210> 31

<211> 1931

<212> DNA

<213> Lycopersicon esculentum

<400> 31

ttttgtcttt ctttcttgtt aaccattttt cttgatattt aacaagaaaa gtttctttct	60
---	----

tttttttcct accctcataa ttgggtagag aacaattccc atggctactt cttcagctta	120
tctttcttgt cctgcaactt ctgctactgg aaagaaacat gttttcccaa atgggtcacc	180
tggattcttg gtttttggtg gtacccgttt gtccaaccgg ttagtgacct gaaagtcggt	240
tattcgggct gatttggtt ctatggtttc tgatatgagt accaacgctc caaaagggct	300
atttccacct gagcctgaac attatcgggg gccaaagctg aaagtagcta ttattggagc	360
tgggcttgca ggcattgtga ctgctgtgga gctcttggt caaggacatg aggtggatat	420
atacgaatca aggactttta ttgggtgggaa agtgggttct tttgttgata gacgtgggaa	480
ccacattgaa atgggactgc acgtgttctt tgggtgttat aataatctgt tccgtctgtt	540
gaaaaagggt ggtgctgaaa aaaatctgct agtgaaggag catactcaca catttgtaaa	600
taaaggggggt gaaatagggg aacttgattt ccgctttcca gttggagcac cttacatgg	660
aattaatgca tttctgtcta ctaatcagtt aaagatttat gataaagcta gaaatgctgt	720
agctcttgcc cttagtccag tgggtcgggc tttagttgat ccggtggtg cattgcagca	780
gatacgcat ctagataatg taagcttttc tgagtgttct ctgtctaaag gtgggacgcg	840
tgctagcatc cagaggatgt gggatcctgt tgcatatgct cttggattca ttgactgtga	900
taacatgagt gctcgggtga tgctcactat atttgcatta tttgccacaa aaacagaggc	960
ttccctatta cgcatgctta aaggttctcc tgacgtttat ttgagtggtc caattaagaa	1020
gtacatcatg gacaaagggg gcaggttcca tctgaggtgg ggatgcagag aggtactcta	1080
tgagacgtcc tctgatggaa gcatgtatgt tagtgggctt gccatgtcaa aggccactca	1140
gaagaaaatt gtaaaagctg atgcatatgt ggctgcatgt gatgtccctg gaattaaaag	1200
attgggttcct cagaagtgga ggaattgga attctttgac aacatttaca aattggtcgg	1260
agtgcctgtt gttaccgtac aactacgcta caatggctgg gttacagagt tgcaggactt	1320
ggagcgttcg aggcaattga agcgcgctgc aggattggac aatctcctct atacgccaga	1380
tgcagatttc tcttgctttg cagatcttgc attggcatct ccagatgatt actacattga	1440
gggacaaggc tcattgcttc aatgtgtcct tacacctggt gacccttaca tgcctctatc	1500
aaatgatgaa atcattaaaa gagttacaaa gcaggttttg gcattatttc cttcgtccca	1560
aggtcttgag gttacctggt catcagtttt gaagatagga caatctttat atcgtgaagg	1620
acctggtaaa gacccattca gacctgatca gaagacgcca gtggaaaatt tctttcttgc	1680
tggctcatat acaaaacagg actacatcga tagcatggaa ggagcaactc tttcaggtag	1740
gcaagcttct gcatacatat gtaatgttgg agagcagctg atggcggttc gtaaaaagat	1800
cactgctgct gagttgaatg acatctctaa aggtgtgtcc ctatctgatg agttgagtct	1860

tgtctgatga cagactgcaa atcatccaaa tacaactcag ttaggcatcg cacaaggaag	1920
aattcttcta a	1931

<210> 32
 <211> 1982
 <212> DNA
 <213> Capsicum annuum

<400> 32	
cacaattcta tggctacttg ttcagcttat ctttgttgtc ctgccacttc tgcttcttta	60
aagaaacgtg tttttccaga tgggtccgct ggattcttgt tttttggtgg tcgtcgtttg	120
tcgaaccggt tagtgacccc aaagtctgtc atccgagctg atttgaactc catggctctct	180
gacatgagta ccaacgctcc aaaagggcta tttccacctg aacctgaaca ttatcggggg	240
ccaaagctga aagtagctat tattggagct ggccttgtag gcatgtcgac tgctgtggag	300
ctcttgatc aaggacatga ggtggatata tatgaatcaa ggaccttcac tgggtgggaaa	360
gtgggttctt ttgttgataa acgtgggaac cacattgaaa tgggactgca cgtgttcttt	420
ggttgctata ataacttatt ccgtctgatg aaaaaggtgg gtgctgaaaa aaatctgcta	480
gtgaaggagc atactcacac atttgtaaat aaagggggtg aaatagggga gcttgatttc	540
cgctttccag ttggagcgcc cttacatgga attaatgcat ttttgtctac taatcaacta	600
aagacttatg ataaagctag aaatgctgta gctcttgccc ttagtccagt ggtgcgggct	660
ttagttgatc cagatggcgc attgcagcag atacgtgatc tagatagtgt aagcttttct	720
gattggttta tgtctaaagg agggacgcgc gctagcatcc agaggatgtg ggatcctggt	780
gcatatgctc ttggattcat tgactgtgac aatatcagtg ctcggtgtat gctcactata	840
tttgcattat ttgccactaa aacggaggct tccctactgc gcatgcttaa aggttctcct	900
gacgtttatt tgagtgggcc aattaagaag tacatcatag acaagggggg aaggttccat	960
ctgaggtggg gatgcagaga ggtactctac gagacatcct ctgatggaag catgtatgtt	1020
agcgggcttg ccatgtcaaa ggccactcag aagaaaattg taaaagctga tgcctatgtt	1080
gccgcatgtg tagtacctgg aattaaaaga ttagtacctc agaagtggag ggaattggaa	1140
ttctttggca acatttacaa actgattgga gtgcctgttg ttactgtgca actacgatac	1200
aatggctggg ttacggagtt gcaggacttg gagcggtcaa ggcaatcaaa gcgcgctaca	1260
ggtttgaca atctcctgta cacgccagat gcagatttct cttgttttgc agaccttgca	1320
ttggcatctc cagaagatta ttacattgag ggacaaggct cgttgcttca atgtgtcctt	1380
acgcctggcg acccttacat gcctctacca aatgaagaaa tcataagaag agtgtcaaag	1440

caggttttgg	cgttatttcc	ttcttcccaa	ggtcttgagg	taacctgggc	atcagttgtg	1500
aagattgggc	aatccttata	tcgtgaagga	cctggtaaag	acccgttcag	acctgatcaa	1560
aagacgccag	tggaaaattt	ctttcttgct	ggctcatata	caaaacagga	ctacatcgat	1620
agtatggaag	gggcaactct	ttcaggcaga	caagcttctg	catacatatg	tgatgctgga	1680
gagcagctgt	tggcgctgcg	aaaaaagatt	gctgctgctg	agttaaacga	gatctctaaa	1740
ggtgtatcgc	tatcggatga	gttgagtctt	gtctgatgac	tgcaaatacat	tcagaaatat	1800
aattcagtta	ggcagtgcat	aaggaagaat	tcttctaaat	ttttgagtct	cacaattatg	1860
gaaatcaaaa	tatgttttaa	aaatgttgta	tgtatgtaat	attagtaaata	cttcatagtg	1920
atgtatgtat	ctattctgcc	acgcttcagt	ttagtgaaat	ggaacttatt	gctgcatcaa	1980
tc						1982

<210> 33
 <211> 2265
 <212> DNA
 <213> Zea mays

<400> 33	
ccctgccacg	acgcccgcga caaatccctg cgcgacggca tcttcgcctc ccatcccctc 60
ccagcttccc	ctcccactcc ggccctcaca caaattgccc ctcttcttct cctcctcttt 120
acacgctgcc	gaccacggct gccgccaacc acccgcccca cccgtccacc gctgccgagt 180
gctagccatt	tggagctgcc gcgcatggc gtccgtggcc gccaccacca cgctggcacc 240
ggcactcgcc	ccgcgccggg cgcgccagg gactgggctc gtgccgccgc gccgggcctc 300
ggccgtcgct	gctcgctcga ccgtaacgtc tccgacatgg cgtcaacgct cccaaagggt 360
attcccaccc	gagccagagc actacagggg cccgaagctc aagggtggcca tcataggggc 420
aggccttgcg	ggcatgtcca ccgctgttga gctcttggac cagggccatg aggttgattt 480
gtacgagtcc	cgtccgttta tcggtggcaa ggttggctcc tttgttgaca ggcaaggaaa 540
ccatatcgag	atggggctgc atgtgttctt cgggtgctac agcaatctct tccgcctcat 600
gaagaagggt	ggcgctgata ataatctgct ggtgaaggaa cataccata cttttgtaaa 660
taaagggggc	acgattgggtg aacttgattt tcggttcccg gtgggagctc cgttacatgg 720
cattcaagca	ttcctaagaa ctaatcagct caaggtttat gataaagcaa gaaatgcagt 780
tgctcttgcc	cttagtccag ttgttcgggc tctgggtgat cctgatgggt cattgcagca 840
agtgcgggac	ttggatgata taagtttcag tgattgggtc atgtccaaag ggggtactcg 900
ggagagtatc	acaagaatgt gggatcctgt tcgttacgct ttgggtttca ttgactgtga 960
taatatcagt	gcacgttgca tgcttactat tttcaccttg tttgccacaa agacagaggc 1020

atccctgtta	cgcatgttaa	agggttcacc	tgatgtttac	ttaagtggtc	caataaagaa	1080
gtatataaca	gacaggggtg	gtaggtttca	cttaaggtgg	ggatgcagag	aggttctcta	1140
tgagaagtca	cctgatggag	agacctatgt	taagggcctt	ctactcacca	aggctacaag	1200
tagagagata	atcaaagctg	atgcatacgt	cgcagcctgt	gatgttccag	gtatcaaaaag	1260
attacttcca	tcagaatgga	gggagtggga	aatgtttgac	aatatctaca	agttagatgg	1320
tgtccctgtt	gtcactgtcc	agctccgcta	caacggatgg	gtcactgaac	ttcaagattt	1380
ggagaaatca	agacaactgc	aaagggcggt	tgggttggat	aaccttttgt	acacggcgga	1440
tgcagacttt	tcctgttttt	cggaccttgc	tctctcatct	cctgctgatt	actacattga	1500
agggcaaggt	tcctgatcc	aagctgtgct	gactcctgga	gatccataca	tgccattgcc	1560
aaacgaggag	atcattagta	aggttcaaaa	gcagggttga	gaactgttcc	catcttcccc	1620
gggcttagaa	gttacatggt	ccagtgtggt	aaagatcgga	caatcgctgt	accgtgaggc	1680
tcctggaaac	gacccattca	ggcctgatca	gaagacgccc	gttaaaaaact	tcttcctctc	1740
tggatcttac	acgaaacagg	actacatcga	cagcatggaa	ggagcaactc	tctccggcag	1800
gcgaacgtcg	gcctacatct	gcggtgccgg	ggaggagctg	ctggccctcc	gaaagaagct	1860
actcatcgac	gacggcgaga	aggcgctggg	gaacgttcaa	gtcctgcagg	ctagctgaac	1920
aaccctcct	gactgcaga	gaagcttggg	tctttccaac	cacacataca	tgctggaatg	1980
gacaaaccaa	ccaaccattg	tcttttctcg	cttcaggggtg	ctggcgattc	ccgcagcaac	2040
ctcctgtgta	tcgtatccaa	tttgagcatt	agatctgccc	ccccccctg	caggcgtttc	2100
tttcctatcc	ctgatccgag	aagcaggggtg	tagtctaggt	ggctggcata	cgggattaca	2160
tcaggcagtg	tgtaagttca	gctggaactc	gattggtaat	tgggatggat	gattgatgat	2220
atatatatag	cacacactgt	tcttgctgtct	tgcaaaaaaa	aaaaa		2265

<210> 34
 <211> 2472
 <212> DNA
 <213> *Oryza* sp.

<400> 34	
ccctgccacg	acgcccgcga
caaatccctg	cgcgacggca
tcttcgcctc	ccatcccctc
60	
ccagcttccc	ctcccactcc
ggccctcaca	caaattgccc
ctcttcttct	cctcctcttt
120	
acacgctgcc	gaccacgggt
gccgccaacc	acccgcccga
cccgtccacc	gctgccgagt
180	
gctagccatt	tggagctgcc
gcgccatggc	gtccgtggcc
gccaccacca	cgctggcacc
240	
ggcactcgcc	ccgcgccggg
cgcggccagg	gactgggctc
gtgccgccgc	gccgggcctc
300	

ggccgctcgct gctcgctcga ccgtaacgct tccgacatgg cgtcaacgct cccaaaggtt	360
attcccaccc gagccagagc actacagggg cccgaagctc aaggtggcca tcataggggc	420
aggccttgcg ggcatgtcca ccgctgttga gctcttgga cagggccatg aggttgattt	480
gtacgagtcg cgtccgttta tcggtggcaa gggtggctcc tttgttgaca ggcaaggaaa	540
ccatatcgag atggggctgc atgtgttctt cgggtgctac agcaatctct tccgctcat	600
gaagaaggtt ggcgctgata ataatctgct ggtgaaggaa cataccata cttttgtaaa	660
taaagggggc acgattggtg aacttgattt tcggttcccg gtgggagctc cgttacatgg	720
cattcaagca ttcctaagaa ctaatcagct caaggtttat gataaagcaa gaaatgcagt	780
tgctcttgcc cttagtccag ttgttcgggc tctggttgat cctgatggtg cattgcagca	840
cccacgcgct cgcacgcg tccggattgg tgaacttgat tttcggtttc ctgtgggagc	900
tccgttacat ggtatccaag cattcctacg aactaacc aa ctcaaggttt atgataaagc	960
aagaaatgcc gttgctcttg ctctaagccc agttgttcga gctcttggtg atccagatgg	1020
tgcattgcag caagtacggg atttgatga tgtaagtttc agcgattggt tcttgctgaa	1080
aggtggtact cgagagagca tcacaaggat gtgggatcct gttgcctatg ctcttggttt	1140
cattgactgt gataatatca gtgcacgttg catgcttacc attttcactc tgtttgccac	1200
aaaaacagag gcatctttat tacgcatgct aaagggttca cctgatgttt atctgagtgg	1260
tccaataaag aagtacataa cagacagggg tggtaggttt cacctgaggt ggggatgtag	1320
ggaggttctc tatgataagt cacctgatgg ggaaacctat gttaaaggcc ttctcctatc	1380
caaggctaca agtagagaga taatcaaagc agatgcata gtcgcagctt gtgatgtccc	1440
ggggatcaaa agacttttac cttctgaatg gaggcaatgg gatacatttg acaacatcta	1500
caagttagat ggtgttcctg tagtcacagt acagcttcgt tataatggat gggttacaga	1560
acttcaagat ttggagaaat caagacaact gaaaaaggca gttggcttgg ataacttct	1620
ctacactcca gatgcagatt tttcatgttt ttcagacctt gcactttcat ctctgctga	1680
ctactacatt gaaggacaag gttccttgat ccaagctgtg ctaaccctg gcgatcctta	1740
catgccattg ccgaatgagg agataattag caaggttcaa aagcaggtct tagaattggt	1800
cccgcatca caaggcttgg aacttacatg gtcgagtgtg gtgaaaatcg gtcaatcatt	1860
gtaccgagag tcaccaggaa atgatccatt tagacctgat caaaagacac cagttaaaaa	1920
cttcttcctg tctggctctt acacaaaaca ggactacatt gacagcatgg aaggggcaac	1980
tctctcaggc aggagaaccg cggcctacat ctgtggtgca ggagaggagc tgcttcgccc	2040
tccgaaagaa gtcattgtc gacgacagcg gagaaggcca ggggtaaggc cgacggccct	2100

tcagacaagc tgagcttcct caaatgacac atgctggagt gaggaggattg ctatgccc	2160
aaacaaaaaca gcttcctggg tgtagtaggc gatttccgca gcgactctca tgtaa	2220
acttgattga gcatttaggt ccaatctgct gctgcccttt ttgccttgac acgatcgttc	2280
gttcgcccggt caatgggtgtg ttcttcgtta ttgtgaattt gtgattggga accaaaggtg	2340
gcatacggga ttacatcagg cagcgtgtgt tttgttcagc ttaaccgatc attgaaccca	2400
ttgatgatga tgatgatgtt tatatagtgc acacatcact taaaaaaaaa aaaaaaaaaa	2460
aaaaaaaaaa aa	2472

<210> 35
 <211> 40
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 35	
cgtcggcctg catggcccta cttctggcta tttctcagt	40

<210> 36
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 36	
ctgtccatgg cggccatcac gtcct	26

<210> 37
 <211> 40
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 37	
cgatggcctg catggcccta ggtctggcca tttctcaatg	40

<210> 38
 <211> 32
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 38

taggataaga tagcaaatcc atggccatca ta

32